
City of Prattville

101 West Main Street
Prattville, Alabama 36067



Storm Water Management Program (SWMP) Plan

NPDES Permit No. ALS000010

September 2020

Prepared By:

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ENGINEERING
SOLUTIONS 

A DIVISION OF HYDRO, LLC

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SECTION 1

Program Administration



1. Program Administration

1.1. Introduction

In 1990, the U.S. Environmental Protection Agency (EPA) promulgated regulations establishing Phase I of the National Pollutant Discharge Elimination Systems (NPDES) storm water program. The Phase I program for municipal separate storm sewer systems (MS4s) requires operators of “medium” and “large” MS4s that generally serve populations of 100,000 or greater to implement a storm water management program as a means to control polluted discharges from certain municipal, industrial and construction activities into the MS4.

In 1999, EPA promulgated regulations establishing Phase II of the NPDES storm water program. The Phase II program extends coverage of the NPDES storm water program to regulated “small” MS4s. A regulated “small” MS4 is defined as a MS4 located within an “urbanized area” as defined by the Census Bureau or as designated by the NPDES permitting authority.

The Alabama Department of Environmental Management (ADEM) presently has primary jurisdiction over permitting and enforcement of the Storm Water Program for Alabama. On 17 June 2016, ADEM issued MS4 Phase II Individual Permit (NPDES Number ALS000010) for storm water discharges associated with the City of Prattville’s (City) MS4. The City’s NPDES Permit became effective on 1 July 2016 and will expire on 30 June 2021.

The Storm Water Management Program (SWMP) Plan has been developed to generally describe the City’s efforts to maintain compliance with the requirements of NPDES Permit ALS000010. This document is intended to be a dynamic document and shall be revised as needed to accurately reflect the City’s activities in implementing its SWMP.

1.2. Legal Authority

1.2.1. Zoning Ordinance

The City adopted a Zoning Ordinance (Ordinance No. 1-63) on 21 May 1963. The Zoning Ordinance has been amended several times since initial adoption with the



latest revision occurring on 1 December 2015. Components of the Zoning Ordinance include the following:

- Classification and Establishment of Districts;
- Enforcement;
- Board of Zoning Adjustment;
- Amendment (of the Zoning Ordinance);
- Legal Status Provisions;
- General Provisions;
- District Requirements (including specific information related to Residential, Industrial, Flood Hazard, and Waterfront Recreation Districts);
- Mobile Home Subdivisions, Townhouses, Patio Garden Homes, Planned Unit Development, and Sign articles;
- Site and Off-Street Parking Landscaping Requirements; and
- Temporary Uses.

The latest version of the Zoning Ordinance is incorporated into the SWMP Plan by reference and is available online at:

https://www.municode.com/library/al/prattville/codes/code_of_ordinances.

1.2.2. Flood Damage Prevention Ordinance

On 2 June 2009, the City adopted revisions to the Flood Damage Prevention Ordinance (Ordinance No. 2009-009). The purpose of this ordinance is to promote the public health, safety and general welfare and to minimize public and private losses due to flood conditions in specific areas of provisions designed to:

- Require that uses vulnerable to floods, including facilities which serve such uses, be protected against flood damage at the time of initial construction;
- Restrict or prohibit uses which are dangerous to health, safety and property due to water or erosion hazards, or which increase flood heights, velocities, or erosion;
- Control filling, grading, dredging and other development which may increase flood damage or erosion;
- Prevent or regulate the construction of flood barriers which will unnaturally divert flood waters or which may increase flood hazards to other lands; and,
- Control the alteration of natural flood plains, stream channels, and natural protective barriers which are involved in the accommodation of flood waters.



The latest version of the Flood Damage Prevention Ordinance is incorporated into the SWMP Plan by reference and is available online at:

https://www.municode.com/library/al/prattville/codes/code_of_ordinances.

1.2.3. Illicit Discharge Ordinance

On 15 May 2018, the City of Prattville adopted an Illicit Detection and Elimination (IDDE) Ordinance (Ordinance No. 2018-007). A copy of the IDDE ordinance is provided in Appendix B. The IDDE ordinance establishes the legal authority for the City to prohibit, monitor, and eliminate illicit discharges and/or illicit connections to the City's MS4. Components of the IDDE ordinance are described below:

- Administration: The IDDE Program shall be administered and implemented by the Public Works Director.
- Prohibition of Illicit Discharges and Illicit Connections: Prohibits the discharge of pollutants or waters containing pollutants into the City's MS4. The IDDE ordinance provides a list of activities that are not considered to be a source of pollution that includes but are not limited to water line flushing, air conditioning drains, dechlorinated swimming pools, dye testing, etc.
- Watercourse Protection: No person owning a premises or leasing a premises through which a watercourse passes shall throw, deposit, leave, maintain, keep, or permit to be thrown, deposited, left, maintained or kept in any part of a watercourse any trash, debris, excessive vegetation and other obstacles that would pollute, contaminate or significantly retard the flow of water through the watercourse.
- Industrial or Construction Activity Discharges: Requires industries with individual, general, or construction NPDES permits to report compliance information to the City for review.
- Compliance Monitoring: Allows the City right of entry for inspection, sampling, and monitoring.
- Prevent, Control, and Reduce Storm Water Pollutants through BMPs: Requires all commercial, industrial, and high-risk facilities to identify, implement, and maintain BMPs to prevent pollution of stormwater to the maximum extent practicable.



- Notification of Accidental Discharges and Spills: Requires responsible parties to notify the City in the event of an accidental discharge or spill within a required time frame.
- Violations, Enforcement, and Penalties: the ordinance provides the City with an escalating level of enforcement actions to address violations of the IDDE ordinance. The City may issue a warning notice, compliance order, stop work order, or a notification of violation. The notification of violation is administered through a City Official as a Uniform Non-Traffic Citation and Complaint. Fines for violations are \$60.00 for a first violation, \$150.00 for a second violation (within a 30-day period), and a court appearance and penalty from a municipal judge for a third violation. After 90 days from rectification of all violations, further violations will be counted as first violations.

1.2.4. Erosion and Sediment Control Ordinance

On 15 May 2018, the City of Prattville adopted an Erosion and Sediment Control (ESC) Ordinance (Ordinance No. 2018-007). A copy of the ESC ordinance is provided in Appendix B. The ESC ordinance establishes the legal authority for the City to implement a Construction Site Runoff program. Components of the ESC ordinance are described below:

- Administration: Erosion and sediment control will be administered, implemented and enforced by the Public Works Director.
- Review of Construction Best Management Practices (CBMP) Plan: Requires review and approval of a CBMP Plan prior to commencing land-disturbing activities.
- Grading Permit Requirement: Requires owners to obtain a grading permit prior to performing land-disturbing activities. Grading permits will only be issued pending CBMP Plan review and approval.
- Defines Land-disturbing Activities: Establishes clear definitions of what requires a grading permit and what is exempt. Examples of projects not requiring grading permits include minor home repairs and additions, agriculture, minor utility work of less than 1,000 linear feet, excavating burial sites, etc.
- CBMP Plan Requirements and BMP Approval Requirements: Establishes requirements for plans and performance of BMPs associate with land-disturbing activities.



- **Bond Requirements:** Requires a letter of credit or surety bond in the amount of \$1,000 for each cleared acre and \$3,000 for each acre of earthwork operations.
- **Compliance Inspection:** Allows City Officials the right of entry to inspect, evaluate, request information, and monitor land-disturbing activities.
- **Notification of Accidental Discharges and Spills:** Requires responsible parties to notify the City in the event of an accidental discharge or spill within a required time frame.
- **Violations, Enforcement, and Penalties:** the City has an escalating level of enforcement actions to address violations of the ESC ordinance. The City may issue a warning notice, compliance order, stop work order, or a notification of violation. The notification of violation is administered through a City Official as a Uniform Non-Traffic Citation and Complaint. Fines for violations are \$60.00 for a first violation, \$150.00 for a second violation (within a 30-day period), and a court appearance and penalty from a municipal judge for a third violation. After 90 days from rectification of all violations, further violations will be counted as first violations.

1.2.5. Post Construction Stormwater Management Ordinance

On 1 May 2018, the City of Prattville adopted a Post Construction Stormwater Management (PCSM) Ordinance (Ordinance No. 2018-008). A copy of the PCSM ordinance is provided in Appendix B. The PCSM ordinance establishes the legal authority to the City for implementing a Post Construction Stormwater Management Program. Components of the PCSM ordinance are described below:

- **Administration:** Post Construction Storm Water Management will be administered, implemented and enforced by the Public Works Director.
- **Storm Water Permit:** Requires a permit for qualifying sites which do not fall under exclusions listed in the ordinance.
- **Design Standards:** Requires the City Engineer to provide a Design Memorandum establishing design standards for Post Construction Best Management Practices (BMPs).
- **Maintenance:** Requires the property owner or party responsible for maintenance of the BMP to perform and report a BMP inspection annually, provide records of any BMP maintenance performed, and sign an Operations and Maintenance Agreement (OMA).



- Additional Requirements for Home Owners Associations (HOAs): Requires that if an HOA is responsible for maintenance of the BMP, an escrow account is established and funded within a set timeframe. The escrow account will be used for funding any required maintenance activities and provide the City funding for BMP maintenance, repair, or reconstruction if the HOA dissolves.
- Enforcement and Violations: Grants the City the right to inspect and determine if a BMP meets the standards established by the ordinance. If required, the City can issue a Notice of Violation and/or enact the OMA requirements. Violators are subject to the remedies, penalties, and/or enforcement actions as permitted by the City ordinance or state code. If appropriate, the City may determine that emergency action is necessary to cease the violation immediately.

1.2.6. Other Ordinances

The City has adopted several other ordinances that help to minimize the potential of pollutants from being discharged in storm water runoff. A list of the ordinances with an outline of applicable sections are provided below.

Nuisances

- In General – exposed wells and pits, weeds, rubbish, keeping garbage and rubbish, stagnant water;
- Nuisance abatement;
- Litter – prohibition of sweeping or depositing into gutters, sewers, streams, drains, sidewalks, parks, etc.; and,
- Abandoned vehicles.

Streets, Sidewalks, and Other Public Places

- In General – adoption of Public Works Manual;
- Construction in streets – permit and plat required; and,
- Special events.

Utilities

- In General – creation of Water Works Board;
- Water system;
- Solid Waste; and,
- Sewers and Sewage disposal
 - General – Purpose, coordination with ADEM, and inspection;



- Public Sewers – discharge restrictions and required connections;
- Private Wastewater Disposal;
- Building sewers, connections, and permits – specifications and permits;
- Prohibited Discharges – constituent limits and fats, oils, and grease control;
- Pretreatment, Accidental Discharges, and Flow Measurement;
- Monitoring Facilities;
- Inspection and Reports;
- Enforcement and Penalties; and,
- Charges and Fees.

The latest versions of these ordinances are incorporated into the SWMP Plan by reference and is available online at:

https://www.municode.com/library/al/prattville/codes/code_of_ordinances.

1.2.7. Comprehensive Plan

The vision of the City's Comprehensive Plan is to provide a guide for future conservation and development in the City that balances economic development with preservation of natural resources. The City utilized a planning process that actively incorporated citizen input to develop the plan with a clear vision for the future of the City of Prattville. Public input included a month-long online survey and design workshop using information gleaned from the survey.

The community objectives outlined by the citizens of Prattville provides recommendations for preserving the City's natural resources. To preserve these natural resources, the Comprehensive Plan provides recommendations that address the following:

- Land use policies;
- Development clustering to preserve natural open space;
- Encourage sustainable development;
- Infill development consistent with existing uses;
- Create an interconnected system of parks and trails;
- Actively seek and set aside land for preservation; and,
- Minimize incursion and impact of development on existing greenspace and conservation areas.



On 21 January 2010, the City adopted the Comprehensive Plan. An electronic copy of the Community Objectives and Implementation portions of the plan is provided in Appendix B.

1.2.8. Subdivision Regulations

The City adopted Subdivision Regulations on 16 February 1989. The Subdivision Regulations have been amended several times since initial adoption with the latest revision occurring on 6 March 2008. The Subdivision Regulations address the following:

- Findings, purpose, authority, and jurisdiction;
- Interpretation, tense, number, and definitions;
- Procedures and requirements for plat acceptance;
- Variances and special subdivisions;
- General requirements and minimum design standards;
- Severability and separability;
- Enforcement; and,
- Effective date.

Requirements for drainage and inundation are provided in Article V, Section J. The requirement states that a drainage plan is required for subdivisions considering the ultimate or saturated condition of the drainage area. Also, the City has the option to accept constructed water bodies and associated maintenance (such as wet retention ponds), provided the water body has sufficient land dedicated to be a public recreational area.

The latest version of the Subdivision Regulations is incorporated into the SWMP Plan by reference and is available online at:

https://www.municode.com/library/al/prattville/codes/code_of_ordinances.

1.2.9. Public Works Manual

The City revised their Public Works Manual January 1994. The Public Works Manual addresses design and construction specification and standards for all development projects. Article VII of the Manual relates to Storm Drainage System requirements for projects and has the following requirements.

- Systems for project drainage basins less than 40,000 square feet: 10-year storm confined conveyance, with provisions for routing the 25-year storm.



- Systems for project drainage basins between 40,000 square feet and 25 acres: 25-year storm confined conveyance, with provisions for routing the 100-year storm.
- Systems for project drainage basins greater than 25 acres: 100-year storm confined conveyance.

Special consideration may be given to innovative drainage designs that would not adversely affect the quality of development in an area. The latest version of the Public Works Manual is provided electronically in Appendix B.

1.3. SWMP Revision

Revisions to the SWMP Plan shall be documented in Table 1.1.

Table 1.1 Program Revision Record

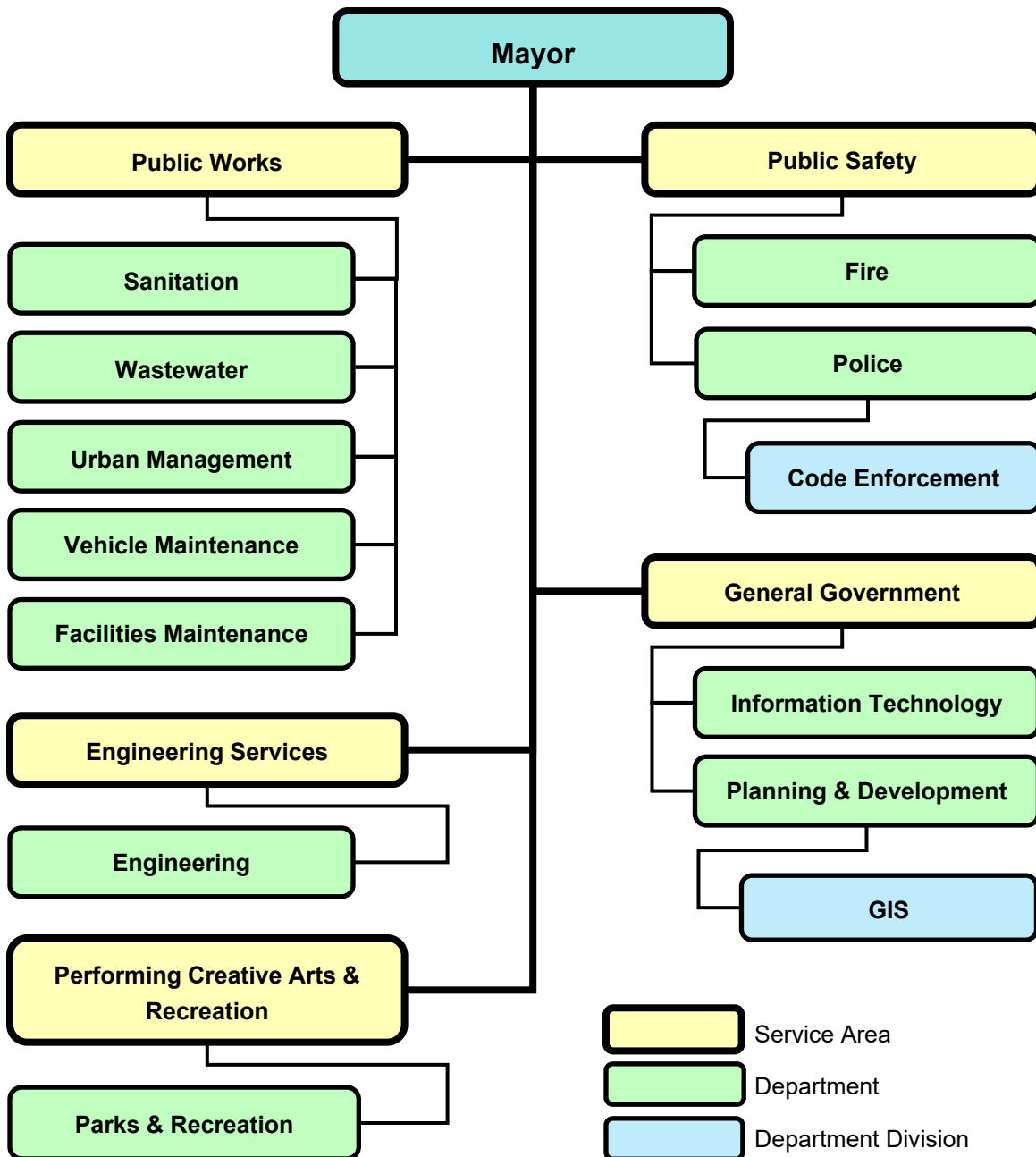
Date:	Revised By:	Description of Revision:
March 2017	Hydro Engineering Solutions	Initial Storm Water Management Program (SWMP) Plan
January 2018	Hydro Engineering Solutions	Annual review and update
January 2019	Hydro Engineering Solutions	Annual Review and update
March 2019	Hydro Engineering Solutions	Updated Illicit Discharge Detection and Elimination, Construction Site Runoff, and Post Construction Stormwater Management Programs
January 2020	Hydro Engineering Solutions	Annual Review and update
January 2021	Hydro Engineering Solutions	Annual Review and update



1.4. Program Administration

The City’s organizational structure for administrating its SWMP Plan is provided in Figure 1.1.

Figure 1.1 Organizational Chart





1.5. Signatory Requirements

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

Bill Gillespie, Jr.
Name

Mayor
Title

Bill Gillespie, Jr.
Signature

1-28-2020
Date

Address: 101 West Main Street
Prattville, Alabama 36067

Phone: (334) 595-0101



SECTION 2

MS4 Area



2. MS4 Area

2.1. MS4 Area

The City of Prattville is located in the central part of the state along the Alabama River in Autauga and Elmore Counties. The City occupies approximately 35.49 square miles and is bordered on the east by the City of Millbrook. Approximately 17.81 square miles (50.2%) of the City is located within Montgomery, Alabama Urbanized Area as defined by 2010 Census. Areas of the City located within the Urbanized Area is the City's regulated MS4 area.

The Alabama Department of Transportation (ALDOT) MS4 extends through the City's MS4 Area. As a result, ALDOT is responsible for activities within their MS4.

The City's corporate limits, MS4 Area, Autauga and Elmore City boundaries, major roads, major streams, and surrounding communities are presented in Figure 2.1.

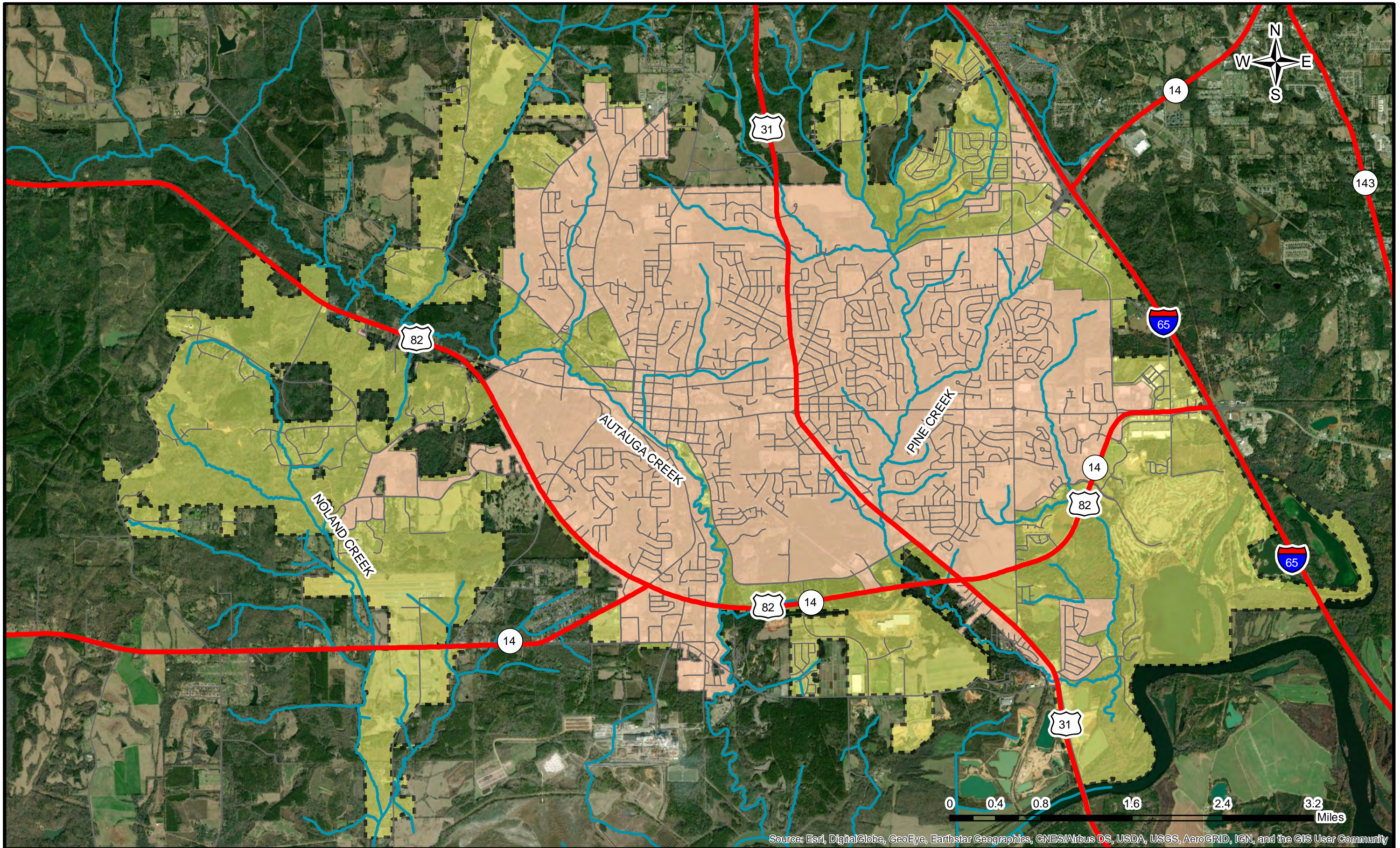
2.1.1. Climate

The City has a humid subtropical climate, with short mild winters, warm springs and autumns, and long hot humid summers. Winter temperatures average 47.9°F in January with lows rarely dipping below 20°F. Summer temperatures average 80.4°F in July with highs exceeding 90°F for more than 72 days per year. The City receives approximately 53.6 inches of rainfall annually. Rainfall tends to be evenly distributed throughout the year with dryer periods occurring during late summer and early fall. Light snowfall occurs in some winters. Average monthly rainfall and temperature are summarized in Figure 2.2. Significant snow fall events are rare in the City.

2.1.2. Population






Since the City was incorporated in 1839, the City experienced a small increase in population until 1960. From 1960 to 2010, the City has experienced a significant population growth. Figure 2.3 provides a graph showing the historical population of the City since 1900.

The 2010 Census estimated the total population of the City to be 33,960. The 2019 estimate for total population is approximately 35,957 residents, indicating a population increase of 1,997 (approximately 5.9%) over the past nine years.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



	Prattville City Limits		Streets		Streams
	Prattville MS4 Area		ALDOT Roads		



CITY OF PRATTVILLE
City of Prattville MS4

Figure 2-1
September 2020



Figure 2.2 Average Rainfall and Temperatures

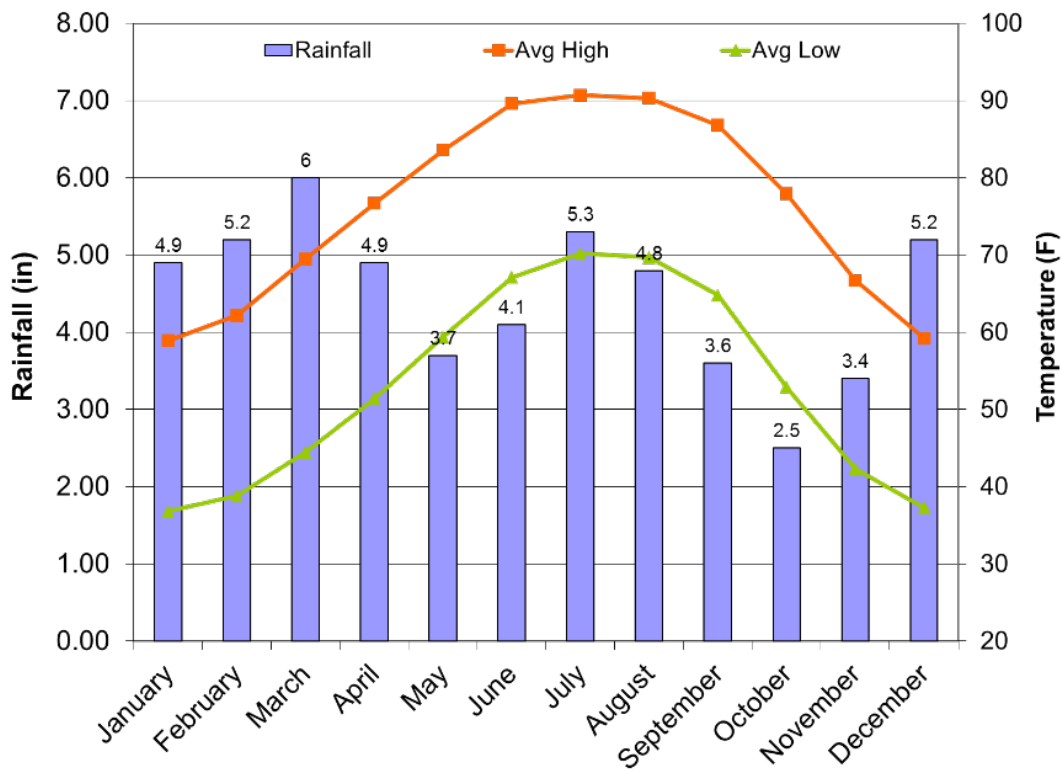
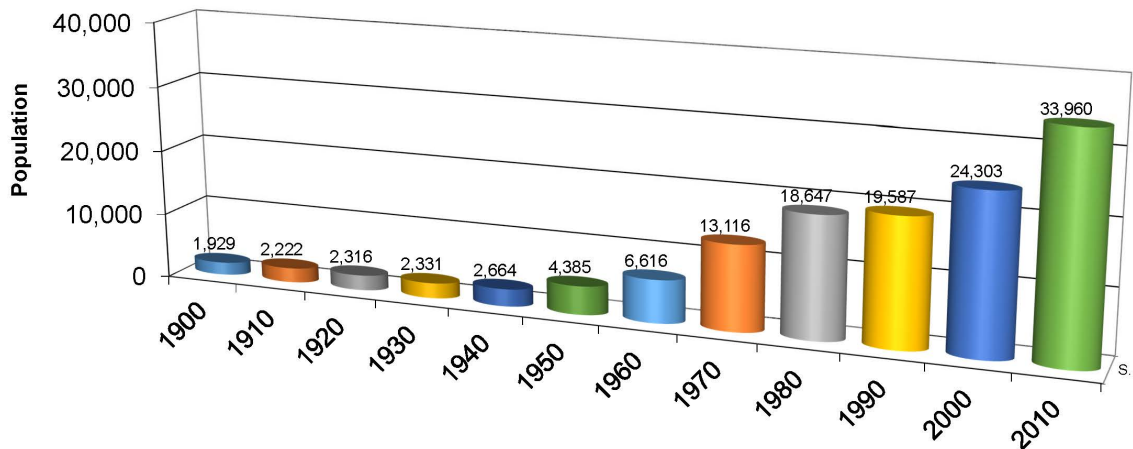


Figure 2.3 Historical Population



2.1.3. Land Use

The City utilizes various zoning districts for the development of land within the City. These zoning categories have been generalized into residential, redevelopment, business, manufacturing, office, planned unit development and agricultural



districts. A summary of the zoning districts is summarized in Table 2.1 and shown in Figure 2.4.

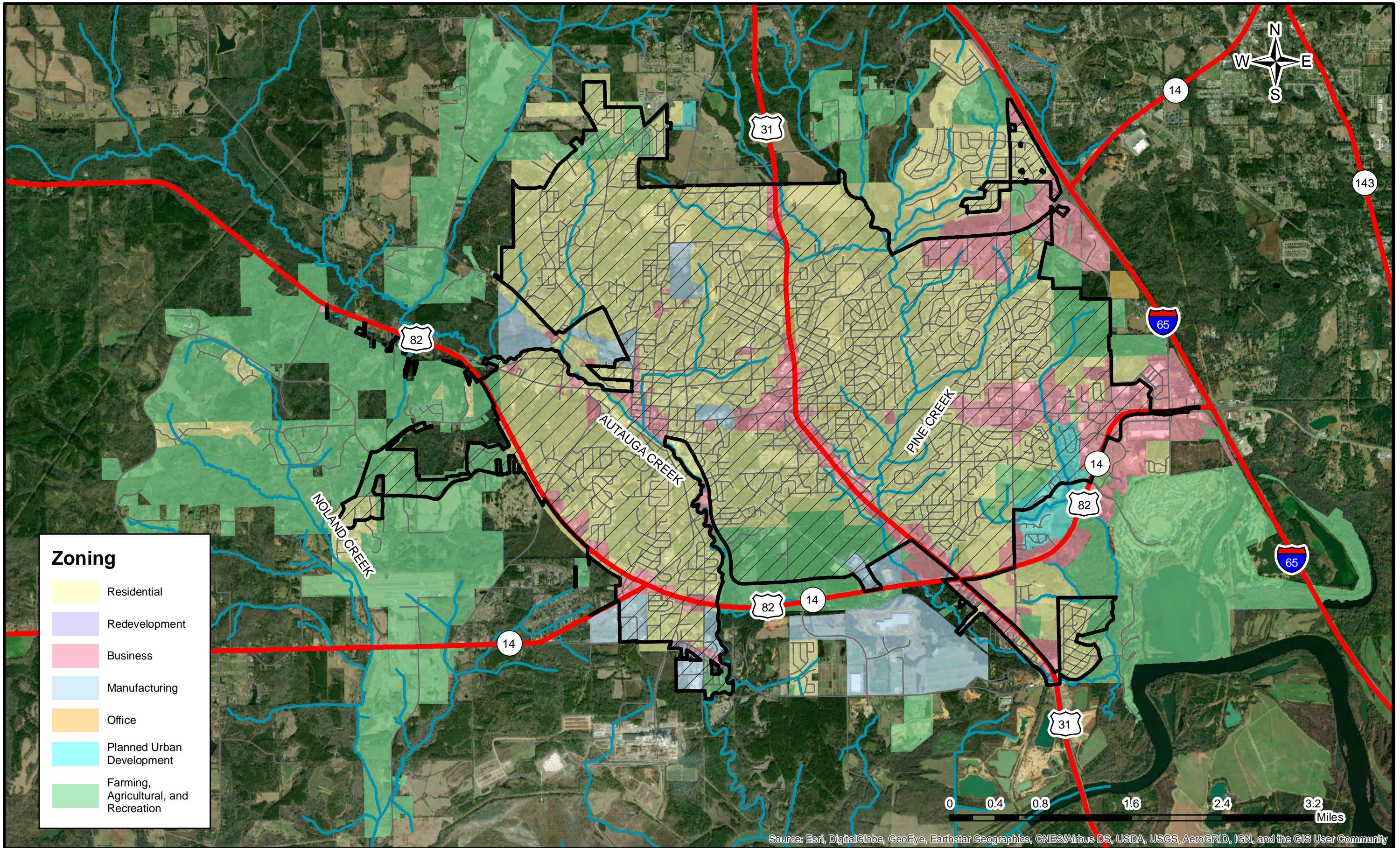
Table 2.1 Zoning Districts

District	City		MS4 Area	
	Area (mi ²)	Area (%)	Area (mi ²)	Area (%)
Residential	15.552	43.8	12.923	72.6
Redevelopment	0.028	0.1	0.022	0.1
Business	3.662	10.3	2.250	12.6
Manufacturing	1.808	5.1	0.465	2.6
Office	0.110	0.3	0.059	0.3
Planned Unit Development	0.424	1.2	0.172	1.0
Agriculture	13.906	39.2	1.919	10.8
Total	35.490	100.0	17.809	100.0

Overlapping the land use with watershed boundaries help the City to identify and implement Best Management Practices (BMPs) targeted to improve water quality.

2.2. Known Problems

According to ADEM's 2020 303(d) list, there are no streams within the City that have been designated as impaired. Additionally, there are no streams with EPA approved Total Maximum Daily Loads (TMDLs) located within the City.



Zoning

- Residential
- Redevelopment
- Business
- Manufacturing
- Office
- Planned Urban Development
- Farming, Agricultural, and Recreation

- Prattville MS4 Area
- ALDOT Roads
- Streams
- Streets



CITY OF PRATTVILLE
Land Use Summary

Figure 2-4
September 2020

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



SECTION 3

Regulatory Requirements



3. Regulatory Requirements

3.1. U.S. Environmental Protection Agency

3.1.1. Phase II MS4 Requirements

U.S. EPA defines the requirements for a SWMP Plan designed to reduce the discharge of pollutants from the MS4 to the maximum extent practicable (MEP), to protect water quality, and to satisfy the appropriate water quality requirements of the Clean Water Act in Title 40, Part 122, Sections 30 through 37 of the Code of Federal Regulations (40 CFR Parts 122.30 through 122.37). These regulations are incorporated into the SWMP Plan by reference.

3.1.2. Effluent Limitation Guidelines

40 CFR 450 Construction and Development Point Source Categories establishes effluent limitation requirements for construction sites and is incorporated into the SWMP Plan by reference. An outline of 40 CFR 450 is provided below.

Part 450 – Construction and Development Point Source Category

Subpart A – General Provisions

450.10 Applicability

450.11 General Definitions

3.2. Alabama Department of Environmental Management

The City's MS4 Program is currently operating under the requirements of the NPDES Permit No. ALS000010 that became effective on 1 July 2016. Part II of the NPDES permit defines the requirements of the SWMP Plan and the requirements of the five (5) minimum control measures.

A copy of NPDES Permit ALS000010 is provided in Appendix A.



SECTION 4

Public Education and
Public Involvement



4. Public Education and Public Involvement

4.1. Introduction

The NPDES permit requires the City to develop, implement and evaluate a public education and public involvement program. Goals of the program are to:

- Educate the community about the impacts of storm water discharges into streams, rivers, lakes, and ponds;
- Identify steps that the community can take to help reduce pollutants in storm water runoff;
- Provide opportunities for public input and feedback;
- Engage the public to actively participate; and,
- Facilitate opportunities to provide public education.

As the public gains a greater understanding of the benefits of a storm water program, the City is likely to gain more support for the SWMP and increased compliance with the NPDES permit requirements. Public education and involvement provides a mechanism to help the public understand how their actions can potentially impact storm water quality. Public participation can also help reduce the amount of pollution generated and identify potential pollution causing activities and/or sources.

4.2. Target Audiences

Development within the City's MS4 areas primarily consists of residential, commercial and manufacturing uses. Audiences typically associated with this type of development and land use may include:

- Home owners;
- Renters;
- Schools;
- Business owners and employees;
- Professionals;
- Developers;



- Contractors; and/or,
- Elected officials.

Educational materials shall be specifically tailored to communicate a specific topic to a targeted audience.

4.3. Target Pollutant Sources

There are several sources of pollution that need to be targeted in a public education program. Target pollutant sources may include:

- Illegal dumping;
- Improper disposal;
- Failing septic systems;
- Impacts of development;
- Construction site erosion;
- Litter, floatables, and debris; or,
- Improper application of fertilizers, herbicides and pesticides.

Educational materials shall be developed to describe BMPs that are effective in reducing the impacts of development on storm water runoff. Topics may include but are not limited to the following:

- General impacts of storm water runoff;
- Rain water reuse;
- Low impact development practices; or,
- Impacts of development.

Educational materials shall be specifically tailored for the targeted pollutant source of concern and/or pollution prevention practices.

4.4. Public Education

The City may utilize a variety of techniques to implement its public education and outreach program. Mechanisms and activities that have proven to be effective in educating the public include:

- Local Partnerships;
- Website;
- Brochures;
- Workshops; or,
- Training.



The City shall perform public participation activities for a minimum of one of the above listed categories per year. A description of how the City is using these activities is described in more detail in the following sections.

4.4.1. Local Partnerships

To capitalize on education materials and programs that have been developed, the City has formed partnerships with several state and local organizations including:

- Alabama Clean Water Partnership;
- Autauga Creek Improvement Committee; and,
- Alabama Cooperative Extension System;

The City may provide financial support or resources to help the organization. Using the Alabama Clean Water Partnership as an example, the City not only provides financial support but also serves as one of the Board of Directors for the organization. As the City's MS4 program continues to evolve, the City may seek partnerships with other agencies and organizations to facilitate the public education program.

4.4.2. Website

The internet provides a very accessible mechanism for making information and data available to City residents. The City's website (www.prattvilleal.gov) may be expanded to incorporate storm water related topics as well as provide information regarding the City's storm water related activities.

4.4.3. Social Media

The City has embraced the growing popularity of social media like Facebook, Twitter, YouTube, Instagram and Pinterest to help inform citizens about activities occurring within the City. Social media accounts setup by the City for the primary purpose of communicating with the public include the following:

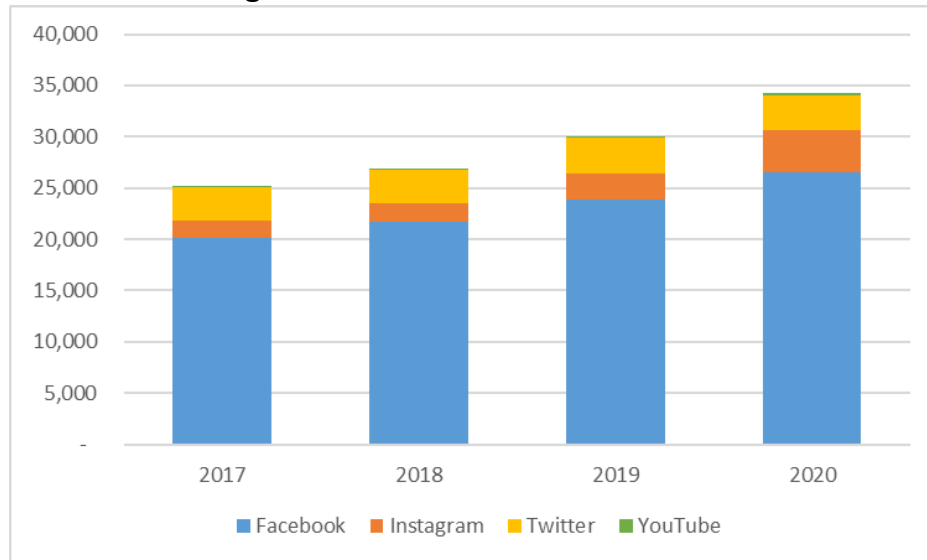
Facebook	www.facebook.com/PrattvilleALgov
Twitter	www.twitter.com/PrattvilleALgov
YouTube	www.youtube.com/PrattvilleALgov
Instagram	www.instagram.com/PrattvilleALgov

To show the effectiveness of social media in communicating with the public, Figure 4.1 provides a chart depicting the steady growth in the number of people following the City's social media sites. This chart shows that residents are seeking information about City events, programs, and schedules through social media



platforms. Social media as an information conduit has gained traction since its inception as residents seek up-to-date alerts, timely information, and deeper understanding of City services.

Figure 4.1 Social Media Followers



4.4.4. Public Service Announcements

The City developed several public service announcements (PSAs) to help educate citizens on reoccurring problems with pollution that impacts the City’s MS4. The City has created a YouTube channel to allow continual access to these PSAs at <https://www.youtube.com/user/PrattvilleALgov>. A summary of the PSAs available to the public includes the following:

- Litter PSAs – Four (4) videos with various volunteer organizations, Public Works Department employees, Mayor Gillespie, and other residents removing litter from public areas. The videos encourage residents not to litter and “Do Your Part” to remove existing litter. Residents are encouraged to use the “hashtag” phrase #WHYlitter. The YouTube feeds are available at:
 - https://www.youtube.com/watch?v=sYA-jMG_1c
 - <https://www.youtube.com/watch?v=ct5bOi3tRCY>
 - <https://www.youtube.com/watch?v=sj3el4U7-lc>
 - <https://www.youtube.com/watch?v=YZWOqbY4LD8>



- Garbage Can Tips – The City replaced residents’ garbage cans and provided a Youtube video showing proper can placement, how to dispose of garbage in the can, and where instructions are located on the can. Giving every resident a new garbage can may encourage residents to utilize the cans more frequently, decreasing litter. The YouTube feed is available at: <https://www.youtube.com/watch?v=bOaN-dN3wTg>.
- Recycling in Our Community – The City published a video describing the four different ways City residents can recycle. Recycling is available through curbside pickup, drop off at the Recycling Center, drop off at recycling dumpsters located throughout the City, and simply placing recyclables in the garbage. More detail of the City’s recycling program is discussed in Section 2.3.4. The YouTube feed is available at: <https://www.youtube.com/watch?v=FTAQb6XyaEQ>.

The City has also embedded one litter PSA and the Garbage Can Tips PSA on Public Works Department webpages.

4.4.5. Brochures

The City of Prattville has developed several brochures, booklets, and handouts to provide general information about storm water related issues. Brochures are made available through the City’s website at the “Stormwater Resources” webpage. Some brochures are developed to address either a specific storm water related issue or to a particular audience. These brochures are typically provided to the audience of interest.

During the development of the City’s SWMP, the City determined that using the website is the most cost-effective mechanism to communicate with residents. This provides the City with more flexibility and creativity to reach a wide public audience. There are many advantages to this strategy, including the following:

- Environmental impact of reduced printing;
- Reduced cost of printing;
- Distribution to a wide-reaching audience independent of visiting a physical location;
- Ability to reach an audience at all times through the website; and,
- Increased communication with City employees, residents, community groups, and neighborhood leaders.



Copies of the existing brochures and booklets available on the website are provided in Appendix C. Table 4.1 provides a summary of the brochures that have been developed.

The City coordinated with the following groups to utilize existing materials and develop educational materials that are unique to the City.

- Environmental Protection Agency (EPA);
- Erie County, New York;
- City of Bryan, Texas; and,
- Mid-America Regional Council (MARC).

4.4.6. Workshops

Workshops are useful in educating a specific target audience about a specific topic or issue. Capitalizing on existing training programs, the City will work with its partners to sponsor workshops in a variety of topics. Workshops may include but are not limited to the following:

- Nonpoint Education for Municipal Officials (NEMO);
- Erosion and Sediment Control;
- Low Impact Development; or,
- Post Construction Storm Water Management.

As the City's MS4 program continues to evolve, the types and frequency of workshops may be modified to address the changing needs of the City.

4.4.7. Training

City departments that provide assistance in implementing the City's SWMP include the Mayor's Office, Public Works, Engineering, Planning, Code Enforcement, Police and Fire and Rescue. The City will evaluate potential training programs, activities and/or materials that can be used to educate the City's staff in storm water related issues.



Table 4.1 Brochures

Description	Target Pollution Source	Target Audience	Distribution
Brochures			
Storm Drain Stewardship	General Information	Homeowners Renters Schools Business Owners Contractors Professionals Developers	Website
Fact Sheets			
Protecting Water Quality from Urban Runoff	General Information	Homeowners Renters Schools Business Owners Contractors Professionals Developers	Website
Booklets			
Down Stream – A Guide for Preventing Urban Runoff and Stormwater Pollution	General Information	Homeowners Renters Schools Business Owners	Website
Do Your Part – Be Septic Smart	Septic System Management	Homeowners Renters Business Owners	Website
Stormwater Requirements for Construction	Construction Site Permitting Informational Links	Contractors Professionals Developers	Website
Posters			
Stormwater and the Construction Industry	Construction Site Runoff ESC Plans BMP Maintenance	Contractors Professionals Developers	Website

4.5. Public Involvement

The City may utilize a variety of mechanisms to implement its public involvement program. Mechanisms and activities that have proven to be effective in educating the public include:

- Public Input;
- Autauga Creek Improvement Committee;



- Autauga County Water Festival; or,
- Public Involvement Opportunities.

The City shall perform public involvement activities that include public input and a minimum of one of the other three above listed categories or subcategories as described in this section per year. A description of how the City is using these activities is provided in more detail in the following sections.

4.5.1. Public Input

The City's storm water website shall be used as the primary mechanism of providing information to the public and receiving input from the public regarding the City's SWMP. The City shall make available the SWMP Plan and annual reports to the public by posting them on their website. If someone would like to provide comments, that individual will be directed to the appropriate City personnel.

4.5.2. Autauga Creek Improvement Committee (ACIC)

In July 2011, the Mayor formed the Autauga Creek Improvement Committee (ACIC) to help protect one of the City's most iconic natural resources, Autauga Creek. A core group of citizens jumped on board and quickly began the process of removing debris and trash from Autauga Creek. As the ACIC continued to evolve, it obtained status as a nonprofit 501(c)(3) organization and developed the following mission statement:

"To provide a natural, scenic, and educational recreation experience through ecological conservation and preservation of quality public access to Autauga Creek Canoe Trail"

In the past couple of years, ACIC has not only secured a spot for Autauga Creek on the Alabama Scenic River Trail, but also acquired the designation as a National Recreational Trail. Signs have been posted along the 14-mile blueway trail to help provide visitors with information about the trail. The sign installed at Doster Well Park and a map of the four (4) mile section of the blueway trail are provided in Figure 4.2. ACIC provides educational opportunities and materials as well as supports cleanup activities along the blueway trail. Information about ACIC is provided at www.ataugacreek.org. Selected brochures developed and distributed by ACIC are provided in Appendix C.

Figure 4.2 Autauga Creek Blueway Trail



4.5.3. Autauga County Water Festival

The mission of the Autauga County Water Festival is to educate students about all aspects of surface water and groundwater and other related natural resources (such as wetlands, forestry, wildlife, and much more) and to instill in them a general environmental awareness and stewardship ethic. Students and their teachers go home with an increased knowledge and awareness of the importance of our precious water resources and on becoming good environmental stewards of these resources. All 4th Grade students in Autauga County including, public, private and home schooled students are invited to participate. Over recent years, the festival has had an annual participation level of over 800 participants. The City has been a long time sponsor of the festival, which is typically held in April of each year.

This is an excellent opportunity to help shape the environmental behaviors of the City's 4th grade students. It is well documented that educating school age children help in improving the environmental behaviors of their parents.

4.5.4. Public Involvement Opportunities

There are a variety of BMPs available that actively incorporates public involvement into the City's MS4 Program. BMPs being considered by the City may include but are not limited to the following:



- Hotline;
- Adopt-a-stream;
- Adopt-a-highway;
- Stream clean-up events;
- Stream bank planting / staking;
- Stream signage;
- Storm drain marking;
- Volunteer monitoring;
- Household hazardous waste day; or,
- Recycling.

The City shall evaluate and determine the most appropriate BMPs to implement within its MS4 boundary. The type and frequency of BMPs implemented may be dependent upon funding, public interest, volunteer availability, and effectiveness.

The City has developed and implemented a Report a Problem feature on their website. This feature allows citizens to report problems at specific locations. The City then distributes the request to the appropriate department. A copy of the Citizen Request webpage is provided in Appendix C.

4.6. Program Goals and Evaluation

The City has developed realistic, achievable and measurable goals and performance milestones to measure the progress in implementing a public education and outreach program. Program goals are summarized in Table 4.2.

The most basic measure to evaluate the program effectiveness is to evaluate whether the program goals are being met. At the end of the permit year, the City shall evaluate the program goals and overall effectiveness in educating the public on storm water related issues. Results of the program evaluation will be summarized in the Annual Report.



**Table 4.1
Public Education and Public Involvement Goals**

Program Component	BMP		Schedule	Responsible Department
	Description	Frequency		
Public Education (Minimum of one / year)	Local Partnerships	Track	30 September 2021	Public Works
	Website	Update as needed	30 September 2021	Public Works Webmaster
	Social Media	Track	30 September 2021	Public Works
	Public Service Announcements	Track	30 September 2021	
	Brochures	1 / year	30 September 2021	
	Workshops	Track	30 September 2021	
	Training	Track	30 September 2021	
Public Involvement (Minimum of one / year)	Citizen Reporting Tools	Track	30 September 2021	Public Works
	Recycling	Track	30 September 2021	Public Works
	Pet Waste Stations	Track	30 September 2021	Public Works Parks and Recreation
	Clean-up Events	Track	30 September 2021	ACIC
	Storm Drain Marking	Develop / Track	30 September 2021	Public Works
	Public Events	Track	30 September 2021	Public Works
Program Evaluation	Evaluate Program Effectiveness	1 / year	30 September 2021	Public Works



SECTION 5

Illicit Discharge
Detection and Elimination



5. Illicit Discharge Detection and Elimination

5.1. Introduction

This Illicit Discharge Detection and Elimination (IDDE) program has been developed using the following guidance materials.

- NPDES Permit ALS000010;
- 40 CFR 122.26; and,
- Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments, October 2004.

These documents are incorporated into the SWMP Plan by reference.

5.2. Authorized Discharges

In accordance with Part I, Section B.2 of the NPDES permit and 40 CFR 122.26(d)(2)(iv)(B)(1), the following non-storm water sources are allowed. The City has determined that these non-storm water discharges are not substantial contributors of pollutants to the MS4:

1. Water line flushing;
2. Landscape irrigation (not consisting of treated or untreated wastewater unless authorized by ADEM);
3. Diverted stream flows;
4. Uncontaminated ground water infiltration;
5. Uncontaminated pumped ground water;
6. Discharges from potable water sources;
7. Foundation and footing drains;
8. Air conditioning drains;
9. Irrigation water (not consisting of treated or untreated wastewater unless authorized by ADEM);
10. Rising ground water;
11. Natural springs;



12. Water from crawl space pumps;
13. Lawn watering runoff;
14. Individual residential car washing, to include charitable carwashes;
15. Residual street wash water;
16. Discharge or flows from firefighting activities (including fire hydrant flushing);
17. Flows from riparian habitats and wetlands;
18. Dechlorinated swimming pool discharges; and,
19. Discharges authorized by and in compliance with a separate NPDES permit.

5.3. Legal Authority

On 15 May 2018, the City adopted an IDDE ordinance that establishes the legal authority for the City to implement its IDDE program. A copy of the IDDE ordinance is provided in Appendix B.

5.4. Preventing Illicit Discharges

The IDDE program identifies key behaviors of the public, facilities and municipal operations that produce intermittent and/or transitory discharges. These key behaviors are targeted to improve pollution prevention practices and prevent or reduce the risk of discharge. The City may develop a wide variety of education and enforcement tools to promote pollution prevention practices.

5.4.1. Public Education

The City may use the following types of activities when informing the public and City employees about the hazards associated with illegal discharges and improper disposal of waste:

- Distribute brochures to encourage proper use and disposal of household chemicals, maintenance of on-site sewage disposal systems, and recycling;
- Discuss the storm water program in a City Council meeting and/or other meetings open to the public;
- Provide information on the City website about pollutant reduction;
- Support local stream clean-up events conducted by non-profits, organizations or State / Federal agencies and programs;



- Support local volunteer monitoring and public education programs;
- Support local storm drain marking program;
- Support regional household pollutant collection events; and
- Support local and regional recycling of wastes.

Public education activities associated with the IDDE program are described in Section 4 of the SWMP Plan.

5.4.2. Public Reporting

The City has developed and implemented a Report a Problem feature on their website. This feature allows citizens to report problems at specific locations. The City then distributes the request to the appropriate department. A copy of the Citizen Request webpage is provided in Appendix D.

5.4.1. Grease Control Program

In order to minimize the disposal of used grease into the sanitary sewer system, the City has implemented a fats, oils and grease control program. This program requires a food service establishment to install, operate and maintain a grease interceptor or trap. A food service establishment is required to submit an annual report summarizing any maintenance activities performed on the grease interceptor or trap. Periodic inspections of the food service establishment are performed by the City.

5.5. Searching for Illicit Discharges

The City shall develop and implement a comprehensive program to detect and eliminate illicit discharges. There are two categories of pollutants that will be addressed in different ways.

1. The first category is pollutants introduced into the MS4 from individuals in a one-time distinct episode at a discrete point of entry. Examples of these are dumping of yard waste, motor oil, antifreeze, or trash into a creek or storm drain. These types of pollutants, when discovered in the MS4 or local streams, cannot be effectively investigated as to the source (i.e. the individual causing the pollution). Also they are not normally discovered using a City-wide MS4 inspection program of monitoring fixed stations with scheduled work-day inspections. One of the best means of discovery will be through input from citizens, City crews, Police and Fire departments, businesses, and area agency field crews. Prevention of future isolated



pollution episodes will rely upon implementation of the Public Education and Public Involvement programs.

2. The second category is pollutants from sources that have a chronic or frequently repeating discharge that can be traced through stream channels and the MS4 system using visual inspections, chemical field test kits, and/or laboratory monitoring. Pollutants from these sources will be dispersed downstream as a detectable odor, visual color, increased turbidity, excessive algae growth, or changes in water chemistry (e.g. pH or conductivity) when compared to uncontaminated water in the stream or MS4. These chronic pollutants are amenable to “source tracking” inspections, and the sources are more likely to be found and mitigated.

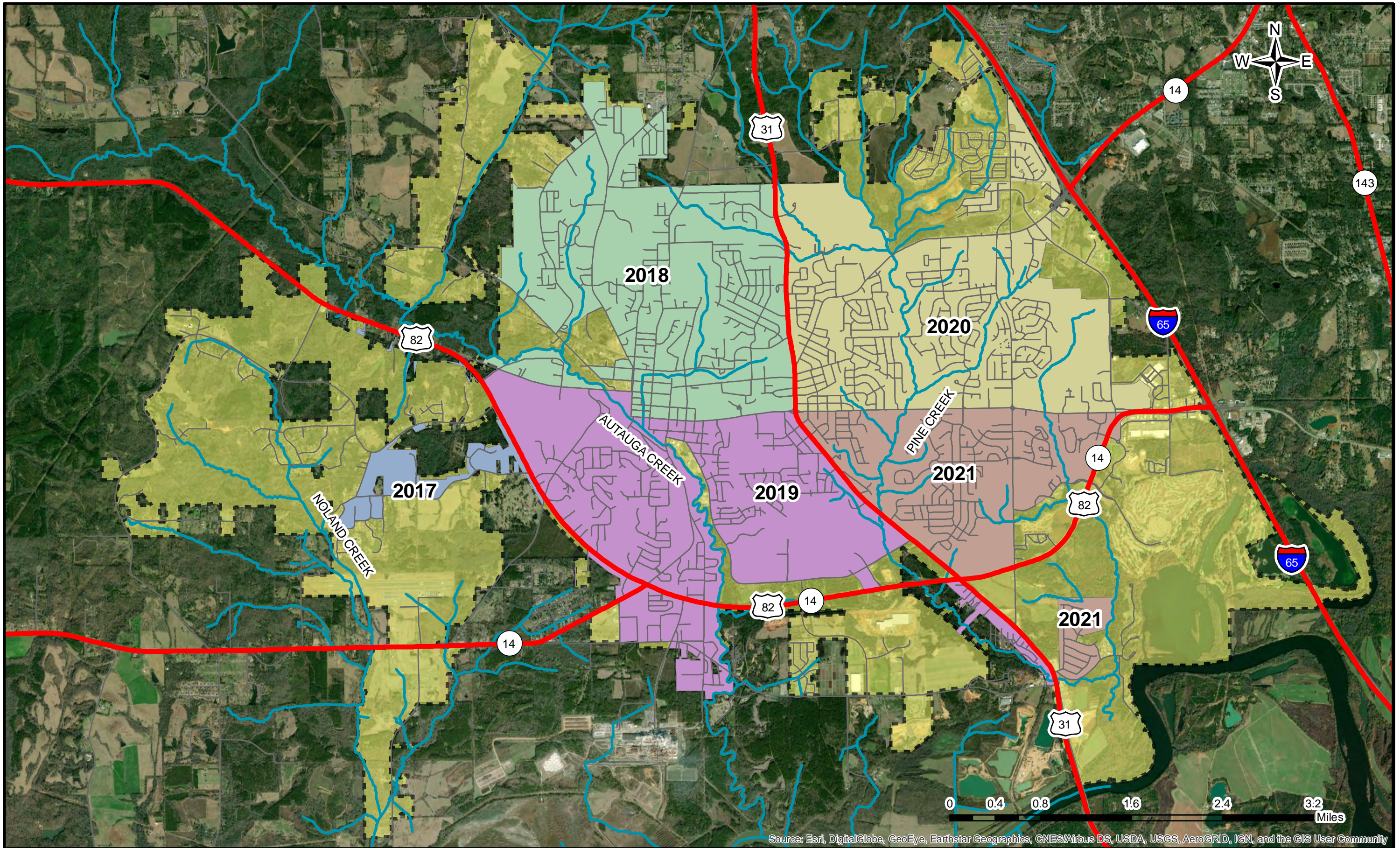
Searching for illicit discharge problems consists of detective work, and involves field screening of sub-watersheds to locate outfalls and identify suspect illicit discharges. The primary field screening tool that will be used is the Outfall Reconnaissance Inventory (ORI). This recommended method is very effective for finding illicit discharge problems and developing an outfall inventory of the MS4. If suspect discharges are encountered during the field screening, the ORI may be supplemented with indicator monitoring methods to test suspect discharges.

5.5.1. Field Activities

Field activities associated with the ORI shall be performed when there has been a prolonged dry period with a minimum of 72 hours from the previous measurable (greater than 0.10 inch rainfall) storm event.

5.5.2. Outfall Inventory Schedule

Since the City is a new MS4, the City has not developed a complete inventory of outfalls. The City has developed a schedule, based on geographical areas of the City’s MS4 area, to locate and screen all outfalls located within the City’s MS4 Area by September 2021. The anticipated mapping and screening schedule is shown in Figure 5.1. After September 2021, the City shall screen a minimum of twenty percent (20%) of the total outfalls once per year until all (100 percent) of the outfalls are screened at least once during a five-year period. If the City exceeds screening more than 20% of the total outfalls each year, the City may complete the screening of all known outfalls in less than a five-year period. If all known outfalls are screened in less than a five-year period, the City may not perform any subsequent screening activities until after September 2026. The City has not identified any priority areas that require more frequent screening.



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Prattville City Limits	Streets	2017	2019	2021
ALDOT Roads	Streams	2018	2020	



CITY OF PRATTVILLE
Outfall Mapping and Screening Schedule

Figure 5-1
September 2020



5.6. Outfall Reconnaissance Inventory (ORI)

The ORI is designed to locate and record basic characteristics of each outfall. During the inventory process, each outfall shall be screened for the presence of illicit discharge(s). The City's ORI methodology and procedures have been developed in accordance with Chapter 11 of the Illicit Discharge Detection and Elimination, A Guidance Manual for Program Development and Technical Assessments, October 2004.

5.6.1. Field Sheets

The City may utilize the Outfall Reconnaissance Inventory / Sample Collection Field Sheet provided with the Illicit Discharge Detection and Elimination guidance manual to collect and document each outfall located and screened. A copy of the Outfall Reconnaissance Inventory / Sample Collection Field Sheet is provided in Appendix D.

The City's may use of best available technology for completing an ORI to identify and screen outfalls by converting the ORI form into an electronic format. This may provide field crews with the following enhanced capabilities:

- GPS mapping to facilitate outfall location;
- Standardize data collection workflows;
- Minimize the types of equipment needed for field work;
- Ability to report a problem immediately when it is discovered;
- Ability to automatically create an outfall screening report; and,
- Data collected is easily converted to a format for ArcGIS.

Data collected during the ORI may be maintained in the City's GIS dataset for illicit discharges.

5.6.2. Screening Data

Information and data that will be collected for each outfall shall include the following:

Section 1 – Background Data

- Coordinates
- Photograph

Section 2 – Outfall Description

- Location
- Material



- Shape
- Dimensions
- Submerged

Section 3 – Quantitative Characterization

- Parameter
- Result
- Unit
- Equipment

Section 4 – Physical Indicators for flowing outfalls only

- Indicator
- Description
- Relative Severity Index

Section 5 – Physical Indicators for both flow and non-flowing outfalls

- Indicator
- Description

Chapter 11 of the Outfall Reconnaissance Inventory of the Illicit Discharge Detection and Elimination Guidance Manual provides direction in completing the Outfall Reconnaissance Inventory / Sample Collection Field Sheet information.

5.7. Suspect Illicit Discharges

If dry weather flow and other physical indicators are encountered at an outfall during the ORI, field personnel shall take the following steps to identify and locate a suspect illicit discharge.

- Evaluate physical indicators of the suspect illicit discharge;
- Conduct field screening of the suspect illicit discharge;
- Try to identify the source of the suspect illicit discharge; and/or,
- Collect a sample of the suspect illicit discharge.

When episodic incidental pollution is reported to the City (e.g. motor oil dumped into a storm drain), the City shall record the date, location, information source, and description of the event. If necessary, field personnel shall be sent to investigate and to determine if the site should be cleaned (e.g. removal of yard waste, containment of oil, etc.). After inspection and/or cleanup, the City shall keep a record of all actions taken regarding the incident.



5.7.1. Physical Indicators

If dry weather flow is present at an outfall, field personnel will evaluate various physical indicators to determine if a potential illicit discharge is present. Physical indicators that may be evaluated are summarized in Table 5.1.

Table 5.1 Physical Indicators

Physical Indicator	Description
Odor	Sewage, Rancid/Sour, Petroleum/Gas, Sulfide, Other
Color	Clear, Brown, Gray, Yellow, Green, Orange, Red, Other
Turbidity	Clear or Turbid
Floatables	Toilet Paper, Suds, Oil Sheet, Other.

If physical indicators are present, field personnel shall document observations on an ORI Field Sheet.

5.7.2. Field Screening

If physical indicators are present and field personnel cannot determine the type or source of the suspect illicit discharge, field personnel may perform field screening to characterize the suspect illicit discharge. Field personnel may evaluate the suspect illicit discharge using a field screening kit to evaluate the indicator parameters listed in Table 5.2.

Table 5.2 Field Screening Parameters

Parameters		
Ammonia	Chlorine	Phosphate
Potassium	Conductivity	Detergents
Nitrate	Nitrite	Temperature
Conductivity	TDS	pH



Results of field screening parameters shall be recorded on the ORI form. If the physical indicators and/or field screening parameters indicate a suspect illicit discharge, field personnel may proceed in locating the source of the suspect illicit discharge.

5.7.3. Sample Collection

If a dry weather flow from an outfall exhibits a physical indicator of a suspect illicit discharge and the field screening evaluation results are inconclusive, field personnel may collect a grab sample of the dry weather flow. The sample shall be shipped to an independent laboratory and analyzed for the parameters listed in Table 5.3.

Table 5.3 Sample Parameters

Parameters		
Ammonia	Chlorine	Surfactants
Turbidity	Conductivity	Detergents
E. Coli	Total Coliform	Fluoride
Hardness	Potassium	

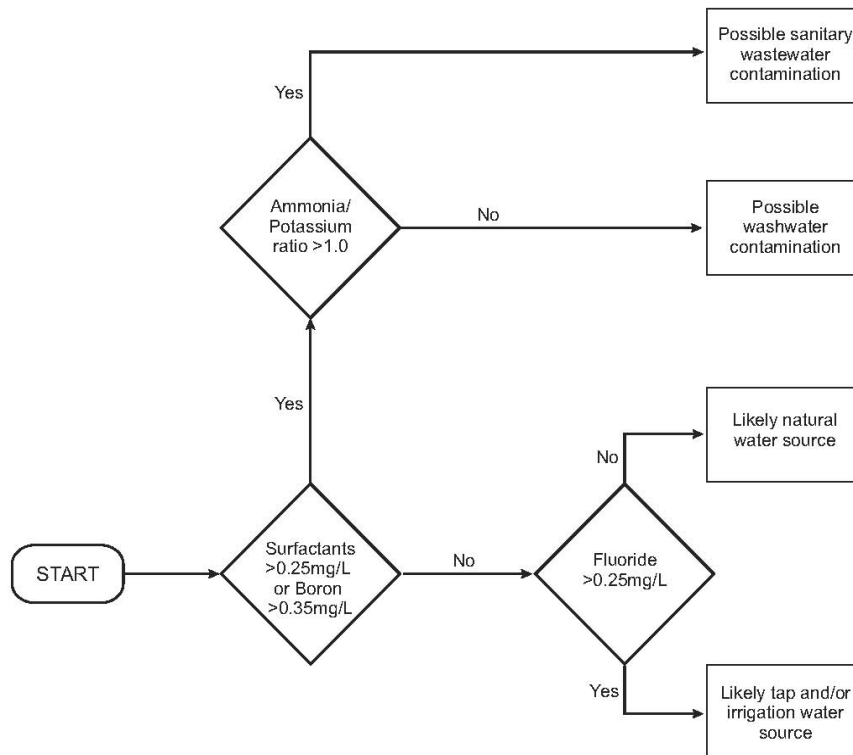
The City shall use the sample collection protocol provided in Appendix G of the Illicit Discharge Detection and Elimination Guidance Manual. Analytical methods for samples submitted to an independent laboratory shall be in accordance with 40 CFR 136.

5.7.4. Evaluation of Results

The Illicit Discharge Detection and Elimination Guidance Manual recommends the use of the Flow Chart Method for identifying the type of illicit discharge. The Flow Chart Method is recommended because it is a relatively simple technique that analyzes four or five indicator parameters that are safe, reliable and inexpensive to measure. The basic decision points involved in the Flow Chart Method for a residential area are shown in Figure 5.2.



Figure 5.2 Flow Chart to Identify Suspect Illicit Discharges



5.7.1. Locating Suspect Illicit Discharges

If a suspect illicit discharge is identified during the outfall reconnaissance inventory, field personnel shall try to locate the source of the illicit discharge before proceeding to the next outfall. Field personnel shall employ the following techniques to identify the source of the suspect illicit discharge.

- Storm Sewer System Evaluation – Field personnel shall attempt to follow the suspect illicit discharge up the storm sewer system to identify its source.
- Drainage Area Evaluation – Field personnel shall conduct a “windshield” survey of the drainage area to identify its source.
- If the source of an illicit discharge is located, field personnel shall report the location and source of the illicit discharge to the Public Works Department.

If the source of a suspect illicit discharge cannot be easily located by field personnel, the location of the suspect illicit discharge will be reported to the Storm Water Program Coordinator.



5.7.2. Eliminating Illicit Discharges

After the source of an illicit discharge has been identified, the Public Works Department shall take appropriate actions to abate the illicit discharge. If the City cannot eliminate the illicit discharge, the City shall report the suspect violator to ADEM or other appropriate regulatory agencies.

5.8. Spill Response

The City's Fire Department is responsible for responding to any type of spill that may occur within the City's MS4 Area. If a spill enters the MS4, the Fire Department shall notify the Public Works Department. The Public Works Department may evaluate the impacts of the spill on the MS4 and ensure appropriate corrective measures are taken to abate the spill. Follow up inspections of the affected area may be performed as needed.

5.9. Sanitary Sewer System

A majority of the City's MS4 area is serviced by the City's sanitary sewer system. The City owns and operates the sanitary sewer collection system and two (2) Wastewater Treatment Plants. If any problems with the sanitary sewer system are encountered, they are reported to the Public Works Wastewater Department.

5.10. Enforcement

The IDDE Ordinance provides the City Official with an escalating scale of enforcement action for violation of any provision in the ordinance. Depending upon the severity of the violation, the City Official may skip a Warning Notice and Compliance Order to issue a Stop Work Order. In general, the sequence of escalating enforcement actions provided by the IDDE Ordinance is described below:

5.10.1. Warning Notice

When the City Official determines that any person has violated or continues to violate any provision of the IDDE Ordinance, the City Official may serve upon that person a Warning Notice specifying the particular violation to have occurred and requesting that the discharger immediately seek to cease any offending discharge.

If the violation is not corrected immediately, the City Official shall determine if the enforcement action should be escalated to a Compliance Order.



5.10.2. Compliance Order

When the City Official finds that any person has violated, or continues to violate, this ordinance, the City Official may issue a compliance order to the violator, directing that, within a specified time period, adequate structures and devices be installed, or procedures implemented, and properly operated or other action be taken to remedy such violation.

If the violation is not corrected immediately, the City Official shall determine if the enforcement action should be escalated to a Notice of Violation.

5.10.3. Notice of Violation

Whenever the City Official finds that any person is in violation of any provision of this ordinance, permit, or any order issued hereunder, the City Official or his agent may serve upon such person written notice of the violation by a Uniform Non-Traffic Citation and Complaint. This Notice of Violation shall contain:

- The name and address of the alleged violator;
- The address of the Premises (when available) or a description of the building, structure or land upon which the violation is occurring or has occurred;
- A statement specifying the nature of the violation; and
- Scheduled court date and/or pay date.

The City Official or agent may require without limitation:

- The performance of monitoring, analyses, and reporting;
- The elimination of illicit connections and/or illicit discharges;
- That violating discharges, practices, or operations shall cease and desist;
- The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
- Payment of an amount equal to administrative and remediation; and/or
- The implementation of source control or treatment BMPs.



5.10.4. Fines

Fines provided by the IDDE Ordinance include the following:

- First Violation - The fine of sixty dollars (\$60.00) shall be assessed for a first violation of this ordinance.
- Second Violation - The fine of one hundred and fifty dollars (\$150.00) shall be assessed for a second violation of this ordinance within a 30-day period.
- Third or Subsequent Violation - For a third or subsequent violation committed by the owner during a 30-day period or longer, the violation will be adjudicated and the penalty determined by the municipal judge.
- If after a ninety (90) day period, all violations of this ordinance have been rectified and no additional violations have occurred during that ninety (90) day period, then any further violations of this ordinance will be assessed as a first violation.

5.10.5. ADEM Notification

If the City observes a suspect illicit discharge entering the City's MS4 from an adjacent MS4, the City shall notify the adjacent MS4 and take steps to eliminate the suspect illicit discharge. If the City exhausts all of its options to eliminate the suspect illicit discharge, the City shall notify ADEM of the suspect illicit discharge and request assistance in eliminating the suspect illicit discharge.

5.11. Staff Training

The City may outsource the ORI of outfalls to a consultant. If the ORI effort is outsourced, the consultant selected shall have adequate training and experience to perform the ORI. If the City elects to utilize internal staff, staff selected to perform the ORI shall receive the following initial training:

- Outfall reconnaissance inventory;
- Water quality monitoring procedures;
- Outfall reconnaissance inventory field procedures; and,
- Illicit discharge tracking procedures.

Refresher training shall be provided on an as needed basis. Any new staff incorporated into the outfall reconnaissance inventory shall receive the initial training described above and refresher training, as applicable.



5.12. Program Goals and Evaluation

The City has developed realistic, achievable and measurable goals and performance milestones to measure the progress in implementing the illicit discharge detection and elimination program. Program goals are summarized in Table 5.4.

The most basic measure to evaluate the program effectiveness is to evaluate whether the program goals are being met. At the end of the permit year, the City will evaluate the program goals and overall effectiveness of illicit discharge detection and elimination program. The results of the program evaluation will be summarized in the Annual Report.



Table 5.4
Illicit Discharge Detection and Elimination Goals

Program Component	BMP		Schedule	Responsible Department
	Description	Frequency		
Legal Authority	Illicit Discharge Detection and Elimination (IDDE) Ordinance	Update as needed	30 September 2021	Public Works City Clerk
Outfall Inventory	Mapping and Screening Schedule	Update as needed	30 September 2021	Public Works
	Outfall Screening Inspection Form	Update as needed	30 September 2021	
	Outfall Map	Annually	30 September 2021	Public Works GIS
	Outfall Mapping and Screening	Each Outfall 1 / 5 years	30 September 2021	
Illicit Discharges	Citizen Reporting Tools	Update as needed	30 September 2021	Public Works
	Inspection Form	Update as needed	30 September 2021	
	Source Tracing Procedures	Update as needed	30 September 2021	
	ADEM Notification Procedures	Update as needed	30 September 2021	
	Mitigation Procedures	Update as needed	30 September 2021	
	Training	Track	30 September 2021	
Program Evaluation	Evaluate Program Effectiveness	Annually	30 September 2021	Public Works



SECTION 6

Construction Site Runoff



6. Construction Site Runoff

6.1. Introduction

The variety of pollutants present at a construction site and the severity of their potential effects to receiving waters are dependent upon several factors.

- Nature of construction activity – During clearing and grading activities, the primary pollutant of concern is sediment. As the construction activity progresses in the building phase, other potential pollutants of concern include concrete wash, paints, stucco, pesticides, herbicides, fertilizers, cleaning solvents, asphalt products, scrap wood, metal, glass, trash debris, etc.
- Physical characteristics of the construction site – Potential pollutants at a construction site are carried off in storm water runoff. Construction sites can potentially increase the intensity and volume of storm water runoff resulting in an increase of pollutant loadings.
- Proximity of surface waters – The closer the construction activity is to a surface water increase the potential impacts to surface waters.

The City shall develop and implement a Construction Site Runoff Program to monitor and control pollutants in storm water discharges to the City's MS4 area from the following land disturbing activities.

- Land disturbance equal to or greater than one (1) acre; and,
- Land disturbance involving less than one (1) acre that is part of a larger common plan of development.

This Construction Site Runoff Program has been developed using the following guidance materials.

- Alabama Handbook for Erosion Control, Sediment Control, and Storm Water Management on Construction Sites and Urban Areas, Alabama Soil and Water Conservation Committee, September 2014; and,



- Developing Your Storm Water Pollution Prevention Plan, A Guide for Construction Sites, Environmental Protection Agency, EPA 833-R-06-004, May 2007.

These documents are incorporated into the Construction Site Runoff Program by reference.

6.2. Program Administration

The Public Works Department is responsible for the development and implementation of the Construction Site Runoff Program. Specific responsibilities associated with each department are summarized below:

- Public Works Department is responsible for construction projects associated with developments that require the construction of infrastructure (roads, water, storm sewer, sanitary sewer, mass grading, etc.).
- Building Department is responsible for construction projects associated with the construction of industrial, commercial and residential buildings.

6.3. Legal Authority

On 15 May 2018, the City adopted an Erosion and Sedimentation Control Ordinance. A copy of the ordinance is provided in Appendix B.

6.4. Requirements and Control Measures

The City's Construction Site Runoff Program requires owners and/or operators of construction sites to select, design, install, implement, inspect and maintain effective Best Management Practices (BMPs) to minimize the discharge of pollutants into the City's MS4 area to the maximum extent practicable (MEP).

6.4.1. Erosion and Sediment Controls

The owner and/or operator shall select, design, install, implement, inspect, and maintain BMPs appropriate to specific site conditions to, at a minimum:

1. Control storm water discharges to minimize erosion at outlets and to minimize downstream channel and stream bank erosion;



2. Minimize the disturbance of steep slopes;
3. Minimize sediment discharges from the site;
4. Minimize the generation of dust and off-site tracking of sediment from vehicles;
5. Stabilize all construction entrances and exits; and,
6. Provide and maintain natural buffers around surface waters, direct storm water to vegetated areas to increase sediment removal and maximize storm water infiltration, unless infeasible.

6.4.2. Soil Stabilization

Stabilization of disturbed areas must, at a minimum, be initiated immediately whenever any clearing, grading, excavating or other earth disturbing activities have permanently ceased on any portion of the site, or temporarily ceased on any portion of the site and will not resume for a period exceeding 13 calendar days.

6.4.3. Dewatering

Discharges from dewatering activities, including discharges from dewatering of trenches and excavations are prohibited unless managed by appropriate BMPs.

6.4.4. Pollution Prevention Measures

The owner and/or operator shall select, design, install, implement, and maintain effective pollution prevention measures to minimize the discharge of pollutants. At a minimum, such measures must be designed, installed, implemented, and maintained to:

1. Minimize the discharge of pollutants from equipment and vehicle washing, wheel wash water, concrete washout, and other wash waters. Wash waters must be treated in a sediment control structure, basin or alternative control that provides equivalent or better treatment prior to discharge;
2. Minimize the exposure of building materials, building products, construction wastes, trash, landscape materials, fertilizers, pesticides, herbicides, detergents, sanitary waste, and other materials present on the site to precipitation and storm water runoff;



3. Minimize the discharge of pollutants from spills and leaks and implement chemical spill and leak prevention and response procedures; and,
4. Use of polymers, flocculants or other treatment chemicals at the site may only be applied where treated storm water is directed to a sediment control structure or basin prior to discharge.

6.4.5. Prohibited Discharges

The following discharges are prohibited:

1. Wastewater from washout of concrete, unless managed by an appropriate BMP;
2. Wastewater from washout and cleanout of stucco, paint, form release oils, curing compounds, and other construction materials;
3. Fuels, oils, or other pollutants used in vehicle and equipment operation and maintenance; and,
4. Soaps or solvents used in vehicle and equipment washing.

6.4.6. Surface Outlets

When discharging from a sediment control structure, basins or impoundments the owner and/or operator shall utilize outlet structures that withdraw water from the surface, unless infeasible.

6.5. Training and Education

Select City staff shall maintain current certification as a Qualified Credentialed Inspector (QCI). To further support this program element, additional staff may obtain and maintain either a QCP or QCI certification. Staff shall receive annual refresher training. Copies of the current QCI training certificates shall be included in the Annual Report.

To assist educating private construction operators, the City has placed materials and links on its web site to provide information about the appropriate application and maintenance of erosion and sediment controls. Also, the City generally has printed booklets with City requirements for construction sites available when owners, contractors, or developers are applying for building and/or grading permits.



6.6. Permitting

The City currently has a permitting process for commercial and residential developments. The existing process for reviewing and approving commercial developments is provided in Figure 6.1. Before the commencement of any land disturbing activity that is not exempted from obtaining a permit, the owner and/or operator of the construction site is required to submit a grading permit application for approval of the Construction Best Management Practices (CBMP) Plan. The grading permit application requires the following information:

- Applicant Information;
- Site Information;
- Project Description;
- Type of Construction;
- If the proposed construction activity is required to obtain a General NPDES Permit for construction activity from ADEM, a copy of the Notice of Intent (NOI) submitted to ADEM and a copy of ADEM's authorization under the General NPDES Permit;
- CBMP Plan;
- Surety Bond or Letter of Credit; and,
- Application Fee.

Copies of the permit applications and submittal checklists are provided in Appendix E.

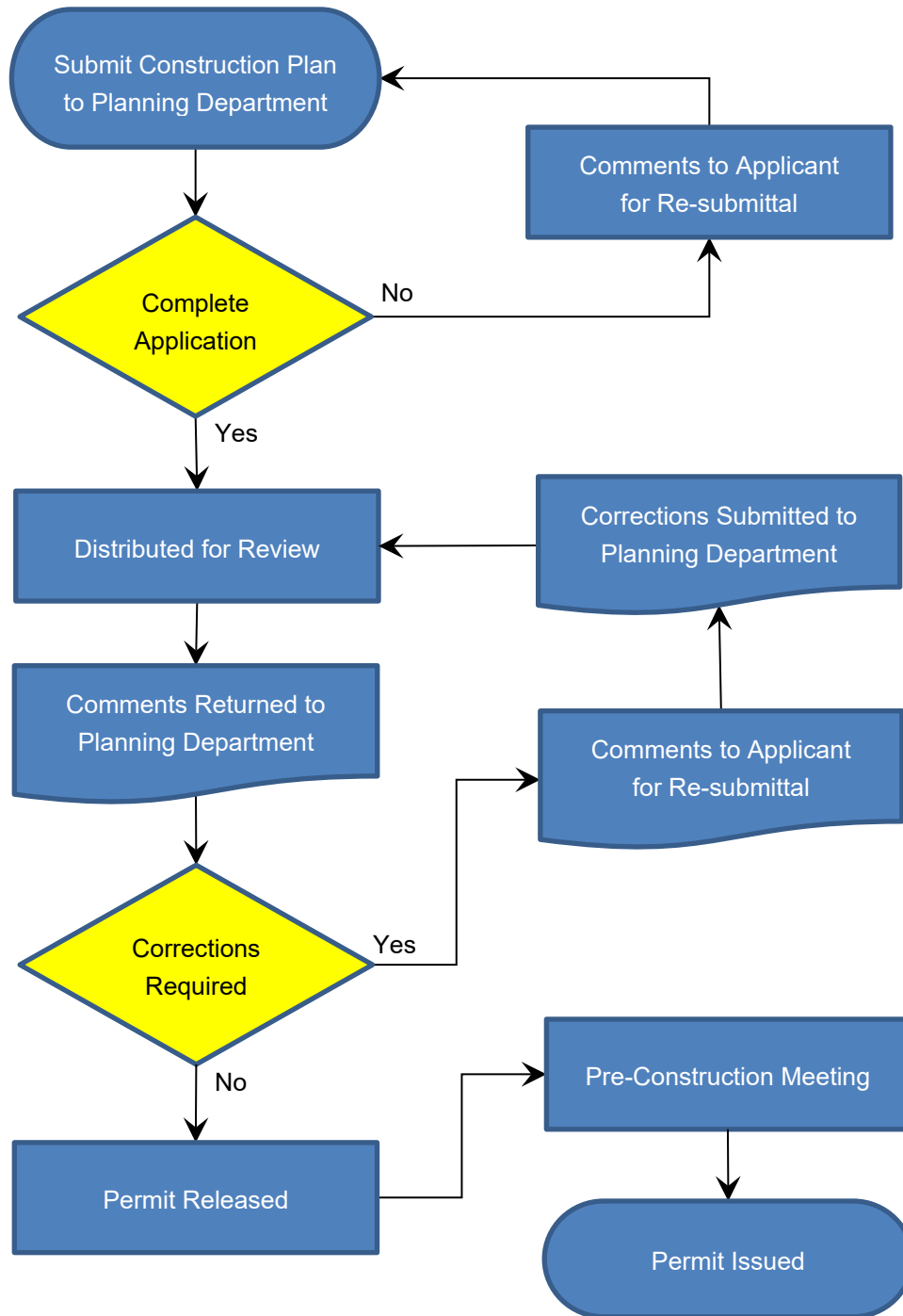
6.7. Plan Review

Before the commencement of any land disturbing activity that is not exempted from obtaining a permit, the owner and/or operator of the construction site is required to submit a permit application for approval of the CBMP Plan. BMPs selected for the site shall be designed, sized, and/or maintained in accordance with the following references:

- Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas, Alabama Soil and Water Conservation Committee, March 2009;



Figure 6.1 Permitting and Plan Review Flow Chart





- Developing Your Stormwater Pollution Prevention Plan, A Guide for Construction Sites, Environmental Protection Agency, EPA 833-R-06-004, May 2007; and,
- National Pollutant Discharge Elimination System General Permit ALR100000 for discharges from construction activities.

Review of the CBMP Plan shall be performed by personnel that are knowledgeable in the many facets of design, stormwater management, erosion and sediment control, and construction. The City shall develop a Standard Operating Procedure (SOP) and checklist for CBMP Plan review. Once the SOP and CBMP Plan Review Checklist are developed, they shall be included in Appendix E.

6.8. Inspections

After the CBMP Plan has been approved, a copy of the approved CBMP Plan shall be provided to the Developer and the project shall be assigned to one of the City's inspectors. The inspector shall review the CBMP Plan, design plans and all applicable project documents. All inspections and activities associated with the project will be tracked by the permit number.

6.8.1. Inspection

Inspections shall be performed for construction sites that discharge into the City's MS4. A construction site that discharges directly to waters of the United States is not covered by the City's MS4 Permit. Since all of the City's inspectors will be QCI certified, the inspector shall evaluate BMPs before inspecting any other activities at the site. The inspection shall address the following:

- Inspect all discharge points from the site;
- Inspect perimeter controls;
- Compare installed BMPs with the CBMP Plan;
- Inspect disturbed areas not currently being worked;
- Inspect areas with final stabilization;
- Inspect perimeter areas; and
- Request copies of the Developer's inspection reports.

If deficiencies are noted during the inspection, the inspector shall discuss the nature of the deficiencies with the Developer. The Developer shall be given 48 hours to correct all deficiencies noted by the inspector. Other inspections associated with foundations, framing and final will not be performed until all BMP



deficiencies have been corrected. The inspector shall document the results of the inspection and schedule the site for re-inspection.

Since there are no impaired streams located within the City's MS4 area, there are no qualifying priority construction sites located within the City's MS4 area. If at some time in the future a stream within the City's MS4 area is listed on ADEM's 303(d) list as impaired for sediment, all qualifying priority construction sites shall be inspected at a minimum frequency of once each month. All other qualifying construction sites shall be inspected at a minimum frequency of once every two (2) months. The inspection frequency of a construction site may be increased depending upon the following:

- Status of construction;
- Site conditions;
- Site size;
- Site location;
- Site proximity to sensitive waters and/or areas;
- Type of construction;
- Historical performance and/or issues with the Developer; and
- Significant storm events.

6.8.2. Final Inspection

Upon completion of all construction activity, the Developer shall request a final inspection. The inspection shall address the following:

- Inspect all discharge points from the site;
- Inspect areas with final stabilization;
- Inspect perimeter areas;
- Request copies of the Developer's inspection reports; and
- Request copy of the Termination of Registration letter from ADEM.

If deficiencies are noted during the inspection, the inspector shall discuss the nature of the deficiencies with the Developer and the Developer shall be asked to reschedule the final inspection. The inspector shall document the results of the inspection and schedule the site for re-inspection.

If the site passes the final inspection, a certificate of occupancy shall be provided. The inspector shall document the results of the inspection.



6.9. Enforcement

The Erosion and Sediment Control Ordinance provides the City Official with an escalating scale of enforcement action for violation of any provision in the ordinance. Depending upon the severity of the violation, the City Official may skip a Warning Notice and Compliance Order to issue a Stop Work Order. In general, the sequence of escalating enforcement actions provided by the Erosion and Sediment Control Ordinance is described below:

6.9.1. Warning Notice

When the City Official determines that any person has violated or continues to violate any provision of the Erosion and Sediment Control Ordinance, the City Official may serve upon that person a Warning Notice specifying the particular violation to have occurred and requesting that the discharger immediately seek to cease any offending discharge.

If the violation is not corrected immediately, the City Official shall determine if the enforcement action should be escalated to a Compliance Order.

6.9.2. Compliance Order

When the City Official finds that any person has violated, or continues to violate, this ordinance, the City Official may issue a compliance order to the violator, directing that, within a specified time period, adequate structures and devices be installed, or procedures implemented, and properly operated or other action be taken to remedy such violation.

If the violation is not corrected immediately, the City Official shall determine if the enforcement action should be escalated to a Notice of Violation.

6.9.3. Stop Work Order

In the event that any person holding a grading permit or building permit pursuant to this ordinance violates the terms of the grading permit or implements site development in such a manner as to materially adversely affect the health, welfare, or safety of persons residing or working in the neighborhood or development site so as to be materially detrimental to the public welfare or injurious to property or improvements in the neighborhood, the City Official may immediately suspend or revoke the grading permit.



6.9.4. Notice of Violation

Whenever the City Official finds that any person is in violation of any provision of this ordinance, permit, or any order issued hereunder, the City Official or his agent may serve upon such person written notice of the violation by a Uniform Non-Traffic Citation and Complaint. This Notice of Violation shall contain:

- The name and address of the alleged violator;
- The address of the Premises (when available) or a description of the building, structure or land upon which the violation is occurring or has occurred;
- A statement specifying the nature of the violation; and
- Scheduled court date and/or pay date.

The City Official or agent may require without limitation:

- The performance of monitoring, analyses, and reporting;
- The elimination of illicit connections and/or illicit discharges;
- That violating discharges, practices, or operations shall cease and desist;
- The abatement or remediation of storm water pollution or contamination hazards and the restoration of any affected property;
- Payment of an amount equal to administrative and remediation; and/or
- The implementation of source control or treatment BMPs.

6.9.5. Fines

Fines provided by the Erosion and Sediment Control Ordinance include the following:

- First Violation - The fine of sixty dollars (\$60.00) shall be assessed for a first violation of this ordinance.
- Second Violation - The fine of one hundred and fifty dollars (\$150.00) shall be assessed for a second violation of this ordinance within a 30-day period.
- Third or Subsequent Violation - For a third or subsequent violation committed by the owner during a 30-day period or longer, the violation will be adjudicated and the penalty determined by the municipal judge.



- If after a ninety (90) day period, all violations of this ordinance have been rectified and no additional violations have occurred during that ninety (90) day period, then any further violations of this ordinance will be assessed as a first violation.

6.9.6. ADEM Notification

If the City exhausts all of its options and enforcement actions to bring a non-compliant construction site into compliance, the City shall notify ADEM of the non-compliant construction site and request ADEM's assistance in bringing the non-compliant construction site into compliance.

6.10. Public Reporting

The City has developed and implemented a Report a Problem feature on their website. This feature allows citizens to report problems at specific locations. The City then distributes the request to the appropriate department. A copy of the Citizen Request webpage is provided in Appendix C.

6.11. Non-Permitted Construction Activities

If City personnel encounter qualifying construction activities that have not obtained an ADEM permit for construction, the City shall notify ADEM. At a minimum, the City shall provide the following information:

- Specific location of the construction project;
- Name and contact information of the owner or operator, if available; and,
- Summary of concerns or permit status.

The City may utilize the Complaints link on ADEM's website to provide this notification.

6.12. Program Goals and Evaluation

The City has developed realistic, achievable and measurable goals and performance milestones to measure the progress in implementing a construction site runoff program. Program goals are summarized in Table 6.1.

The most basic measure to evaluate the program effectiveness is to evaluate whether the program goals are being met. At the end of the permit year, the City will evaluate the program goals and overall effectiveness in educating the public



on storm water related issues. The results of the program evaluation will be summarized in the Annual Report.



**Table 6.1
Construction Site Runoff Goals**

Program Component	BMP		Schedule	Responsible Department
	Description	Frequency		
Legal Authority	Erosion and Sediment Control (ESC) Ordinance	Update as needed	30 September 2021	Public Works City Clerk
Permitting	Permit Application Requirements	Update as needed	30 September 2021	Planning and Development
	Permits Issued	Track	30 September 2021	
Plan Review	Construction Best Management Practices Plan (CBMPP) Requirements	Update as needed	30 September 2021	Planning and Development
	CBMPP Review Checklist and Procedures	Update as needed	30 September 2021	
	CBMPPs Reviewed	Track	30 September 2021	
Inspections	Inspection Requirements	Update as needed	30 September 2021	Planning and Development
	Inspections	Track	30 September 2021	
Enforcement Actions	Enforcement Strategy	Update as needed	30 September 2021	Code Enforcement
	Enforcement Tracking System	Update as needed	30 September 2021	
	Enforcement Actions	Track	30 September 2021	
	Citizen Reporting Tools	Update as needed	30 September 2021	Public Works Code Enforcement
	ADEM Notification Procedures	Update as needed	30 September 2021	Public Works
Training	QCI Training	1 / year	30 September 2021	Public Works Planning and Development Engineering
Program Evaluation	Evaluate Program Effectiveness	1 / year	30 September 2021	Public Works



SECTION 7

Post Construction
Storm Water Management



7. Post Construction Storm Water Management

7.1. Introduction

Post construction runoff generally has two types of impacts. First, developed areas may increase the type and quantity of pollutants in storm water runoff. When storm water flows over areas altered by development it has a potential to pick up a variety of pollutants including but not limited to trash, debris, sediment, oil, grease, pesticides, heavy metals and/or nutrients, and carry these pollutants to the streams and lakes. Second, development increases the impervious surfaces of an area resulting in a quantity increase of storm water runoff. Increased impervious surfaces like buildings and parking lots interrupt the natural cycle of gradual percolation of storm water through the vegetation and soil. Instead, storm water is collected on the impervious surface and conveyed to drainage systems where increase volumes of storm water runoff enter the stream quickly. As a result, stream banks are more susceptible to scouring and the downstream areas have a higher potential of flooding.

The NPDES permit requires the City to develop, implement and enforce a program to address storm water discharges from new development and redevelopment projects. Goals of this program should be to:

- Retain the pre-disturbance hydrological conditions of both surface and groundwater;
- Remove suspended solids and associated pollutants entrained in stormwater runoff that result from activities occurring during and after development;
- Decrease the erosive potential of increased runoff volumes and velocities associated with development;
- Preserve natural systems including in-stream habitat, riparian areas and wetlands; and,
- Reduce the thermal impacts that result from impervious surfaces and treatment devices with large amounts of surface exposed to sunlight such as wet ponds.



7.2. Program Administration

The Public works Department is responsible for developing establishing design standards, plan review, as-built certification, inspection and maintenance requirements for post-construction structural BMPs. The Engineering Department shall be responsible for plan review and any additional technical assistance for post-construction structural BMPs.

7.3. Legal Authority

On 1 May 2018, the City of Prattville adopted a Post Construction Stormwater Management Ordinance. A copy of the ordinance is provided in Appendix B.

7.4. Program Components

There are a variety of structural BMPs capable of not only mimicking pre development hydrology, but also, provide very effective treatment of storm water runoff. Structural BMPs may include but are not limited to the following:

- Storm water retention / detention basins;
- Infiltration basins / trenches;
- Proprietary structural devices;
- Pervious pavement;
- Grass swales;
- Filter strips;
- Constructed wetlands;
- Rain barrels; and,
- Rain gardens.

As the City's post construction storm water management program develops, the City shall evaluate and identify the most appropriate BMPs to ensure, to the MEP, that post construction runoff mimics pre-construction hydrology. A 1.14 inch rainfall over a 24-hour period preceded by a 72-hour antecedent dry period shall be the basis for the design and implementation of post-construction BMPs.

7.4.1. Permitting

The City currently has a permitting process for commercial and residential developments. The existing process for reviewing and approving commercial developments is provided in Figure 6.1. All qualifying new development and redevelopment of areas greater than one acre, less than one acre and part of a



common development greater than one acre, or a development where stormwater management is required to provide adequate protection of the City's MS4 require a Post Construction Stormwater Permit (PCSP). The PCSP application requires the following information:

- Applicant Information;
- Site Information;
- Project Description;
- Type of Construction;
- Contact Information for the following:
 - Project Owner
 - Engineer/Designer
 - Contractor
- Waiver Request Form or Design Form;
- Site Development Plan / Preliminary Plat; and,
- Required Supporting Documentation.

Copies of the permit applications and submittal checklists are provided in Appendix F.

7.4.2. Post Construction Technical Memorandum

The City's Post Construction Storm Water Ordinance establishes design standards through a Design Memorandum. The City developed a technical memorandum describing how it will implement a post-construction storm water management program for qualifying new development or redevelopment. Post-construction storm water runoff quality is an important component of the City's SWMP. For all qualifying new development or redevelopment, post-construction storm water management shall include water quality BMPs to detain and treat the first 1.14 inches of rainfall that occurs on the project site. To document design information for post-construction BMPs, the City has developed design forms for BMPs that include detention ponds, retention ponds, underground detention, bioretention areas, and hydro dynamic separators. Copies of the design forms are provided in Appendix E. Components of the technical memorandum include the following:



- Overview;
- Applicable Developments;
- Implementation;
- Waiver Request;
- Water Quality Requirements;
- Low Impact Development;
- Design Standards;
- As-Built Certification;
- Annual Inspections;
- Home Owner's Association (HOA) Requirements; and,
- Operation and Maintenance.

The technical memorandum was finalized and became effective on 5 October 2018. The City updated the Technical Memorandum on 21 March 2020 to include updated design, annual inspection, and operations and maintenance requirements. A copy of the Technical Memorandum is provided in Appendix F.

7.4.3. Waiver Request

The City recognizes that there are existing project sites that have been constructed or previously approved, prior to the effective date of the technical memorandum, that may qualify for a waiver from the updated post-construction storm water management requirements. Also, there may be projects which reduce the existing impervious area within the development. As a result, the City has developed two (2) Post-Construction Storm Water Management Waiver Request Forms to address existing project sites and sites with impervious area reductions. The City updated the Waiver Request forms on 21 March 2020 to include supplemental instructions.

In order for a project site to be considered for a waiver, the waiver request form must be completed and submitted to the City for review and approval. If a waiver has been submitted for a development that has not been completed and the density of the development is increased and/or modified, the developer is required to resubmit a waiver request for this development. Copies of the Existing Development and Impervious Area Waiver Request Forms are provided in Appendix F.

7.4.4. Water Quality Requirements

Post-construction stormwater runoff quality is an important component of the City's SWMP. For all qualifying new development or redevelopment, Post-construction stormwater management shall include water quality BMPs to detain and treat the first 1.14 inches of rainfall that occurs on the project site.



7.4.5. Low Impact Development

The City shall encourage landowners and developers to incorporate the use of low impact development (LID) into development plans. The City has reviewed and adopted the latest version of the *Low Impact Development (LID) Handbook for the State of Alabama*.

7.4.6. Post Construction BMP Plan Review

The City already has a permitting and plan review process that is shown in Figure 6.1. During the development of the Post-Construction Storm Water Management Program, the City has incorporated the post construction BMP plan review into the existing process.

On 21 March 2020, the City updated the Program's existing Design Forms and added three (3) new Post-Construction BMP Design Forms. New Design Forms for Underground Detention, Bioretention Area, and Hydrodynamic Separator BMPs were developed and became effective.

7.4.7. As-built Certification

As a part of the NPDES permit, the City must insure the BMPs that have been designed and approved are constructed and operated in accordance with their original design and intent. In an effort to confirm that the constructed BMPs meet the designer's intent, an As-Built Evaluation and Certification form has been developed. It is the Owner's responsibility to have as-built information, such as pond volume, embankment size and elevations, invert size and elevations, and spillway elevations, field surveyed by a Professional Land Surveyor. It is the Engineer-of-Record's responsibility to utilize the field surveyed information to fill out the As-Built Evaluation and Certification Form. Copies of the As-Built Certification Forms are provided in Appendix F.

7.4.8. Annual Inspection

As a part of the NPDES permit, the City must insure the BMPs that have been designed and approved are constructed and operated in accordance with their original design and intent. In an effort to confirm that the constructed BMPs meet the designer's intent, As-Built Certification Forms were developed. It is the Owner's responsibility to have as-built information, such as pond volume, embankment size and elevations, invert size and elevations, and spillway elevations, field surveyed by a Professional Land Surveyor. It is the Engineer-of-



Record's responsibility to utilize the field surveyed information to fill out the appropriate As-Built Certification Form.

On 21 March 2020, the City updated the Program's existing As-Built Certification Forms and added three (3) new Post-Construction As-Built Certification Forms. New As-Built Certification Forms for Underground Detention, Bioretention Area, and Hydrodynamic Separator BMPs were developed and became effective during the permit year. Copies of the Annual Inspection Forms are provided in Appendix F.

7.4.9. Operation and Maintenance Agreement

It is the responsibility of the Owner to operate and maintain the stormwater management facility and/or BMPs in accordance with the original design intent and approval. If the original Owner or Developer has sold the project or passed ownership on to a Homeowner's Association, then it is the new Owner or HOA's responsibility to maintain the facility and provide any required inspection and maintenance. Prior to Final Plat Approval, the owner must submit an Operations and Maintenance Agreement (OMA) to the City for approval.

Should maintenance be needed at a facility as a result of the Annual Inspection, the Owner is required to provide the City with documentation describing the maintenance required and a schedule for completing all maintenance activities. Once all maintenance activities are completed, the Owner is required to provide documentation to the City of the maintenance performed and that the BMP operates as it was designed. Under the City's OMA, if the owner or developer does not complete the construction of BMPs fully or does not maintain BMPs according to the required standards, the City can perform any necessary measures to bring the BMPs into compliance. The owner is responsible for reimbursing the City for any reasonable costs associated with the completion or maintenance of the BMPs. A copy of the OMA is provided in Appendix F.

7.4.10. Maintenance Escrow Agreement and Account

For residential subdivisions with Home Owner's Associations (HOAs), the City's Post Construction Stormwater Management Ordinance requires the establishment of an escrow account to ensure that adequate funds are available to provide for the operation, long-term maintenance, inspection, repair, and replacement or reconstruction of Post Construction BMPs. An escrow account shall be established to, at minimum, cover 50% of the constructed cost of each post construction stormwater management BMP. The developer or HOA shall initially pay 10% of this amount. The developer or HOA shall annual contribute 10% of



the remaining amount required until the escrow account balance is equal to 50% of the constructed cost of each BMP.

The City requires HOAs to sign a Maintenance Escrow Account Agreement form and report the annual financial status of the escrow account with the Escrow Account / Maintenance Request Form the City provides in the Technical Memorandum. The City shall review and approve any escrow account disbursement requests listed on the form prior to the HOA withdrawing money for BMP maintenance. Copies of the Escrow Account Agreement and Escrow Account / Maintenance Request Form are provided in Appendix F.

7.5. Program Goals and Evaluation

The City has developed realistic, achievable and measurable goals and performance milestones to measure the progress in implementing a post construction storm water management program. Program goals are summarized in Table 7.1.

The most basic measure to evaluate the program effectiveness is to evaluate whether the program goals are being met. At the end of the permit year, the City will evaluate the program goals and overall effectiveness of post construction storm water controls to improve storm water quality. The results of the program evaluation will be summarized in the Annual Report.



**Table 7.1
Post Construction Storm Water Management Goals**

Program Component	BMP		Schedule	Responsible Department
	Description	Frequency		
Legal Authority	Post Construction Stormwater Management New Ordinance or Modify Existing Ordinances	Update as needed	30 September 2021	Public Works Planning and Development City Clerk
Permitting	Low Impact Development	Encourage	30 September 2021	Planning and Development
	Permit Application Requirements	Update as needed	30 September 2021	
	Permits Issued	Track	30 September 2021	
Plan Review	Post Construction Stormwater Management Requirements	Update as needed	30 September 2021	Planning and Development
	Plan Review Checklist and Procedures	Update as needed	30 September 2021	
	Plans Reviewed	Track	30 September 2021	
Post Construction BMPs	As-Built Certification Requirements	Update as needed	30 September 2021	Planning and Development
	As-Built Certifications	Track	30 September 2021	
	Post Construction BMP Inventory	Track	30 September 2021	
Maintenance	Maintenance Requirements	Update as needed	30 September 2021	Planning and Development
	Maintenance Activities	Track	30 September 2021	
Program Evaluation	Evaluate Program Effectiveness	Annually	30 September 2021	Public Works Planning and Development



SECTION 8

Pollution Prevention and
Good Housekeeping



8. Pollution Prevention and Good Housekeeping

8.1. Introduction

Pollution prevention / good housekeeping for municipal operations is a control measure designed to emphasize the operation and maintenance of the MS4 and proper training of City employees. Performing municipal activities in a careful and proper manner prevents and/or reduces the potential of polluting storm water runoff. City operations may include the following:

- Park and open space;
- Fleet and building maintenance;
- New construction and land disturbances;
- Storm sewer system maintenance;
- Roads and highways;
- Municipal parking lots;
- Maintenance and storage yards;
- Waste transfer stations; and,
- Recycling centers.

8.2. Program Components

The pollution prevention / good housekeeping program is a key element to help the MS4 to reduce potential pollutants from entering storm water runoff. This control measure requires the City to evaluate existing facilities and operations to identify areas of improvement that will help ensure a reduction in the amount and type of potential pollutants.

8.3. Municipal Facilities

The City provides a wide range of services to its citizens by various City Departments and facilities located throughout the City. The City maintains approximately 102 properties that consist of support facilities, parks, ball fields, and building grounds that occupy approximately 1,080 acres (1.6871 square miles).



8.3.1. Facility Inventory

The City shall complete an inventory of City facilities and areas that have a potential to interact with storm water runoff. The location of City Facilities are shown in Figure 8.1. A comprehensive list and map of City facilities will help City employees build a better awareness of their locations within the MS4 and their potential to contribute pollutants in storm water runoff.

8.3.2. Facility Inspections

The majority of municipal properties consist of parks and athletic fields which are actively utilized by the public throughout the year. Maintenance and upkeep of these facilities are performed on a routine basis. A summary of the maintenance activities and associated documentation is provided in Section 8.3.4.

The City has identified six (6) facilities where operational activities occur to support City services. Maintenance and upkeep of these facilities are performed on a routine basis. After the City develops a Good Housekeeping Checklist, annual inspections shall be performed for the support facilities listed in Table 8.1.

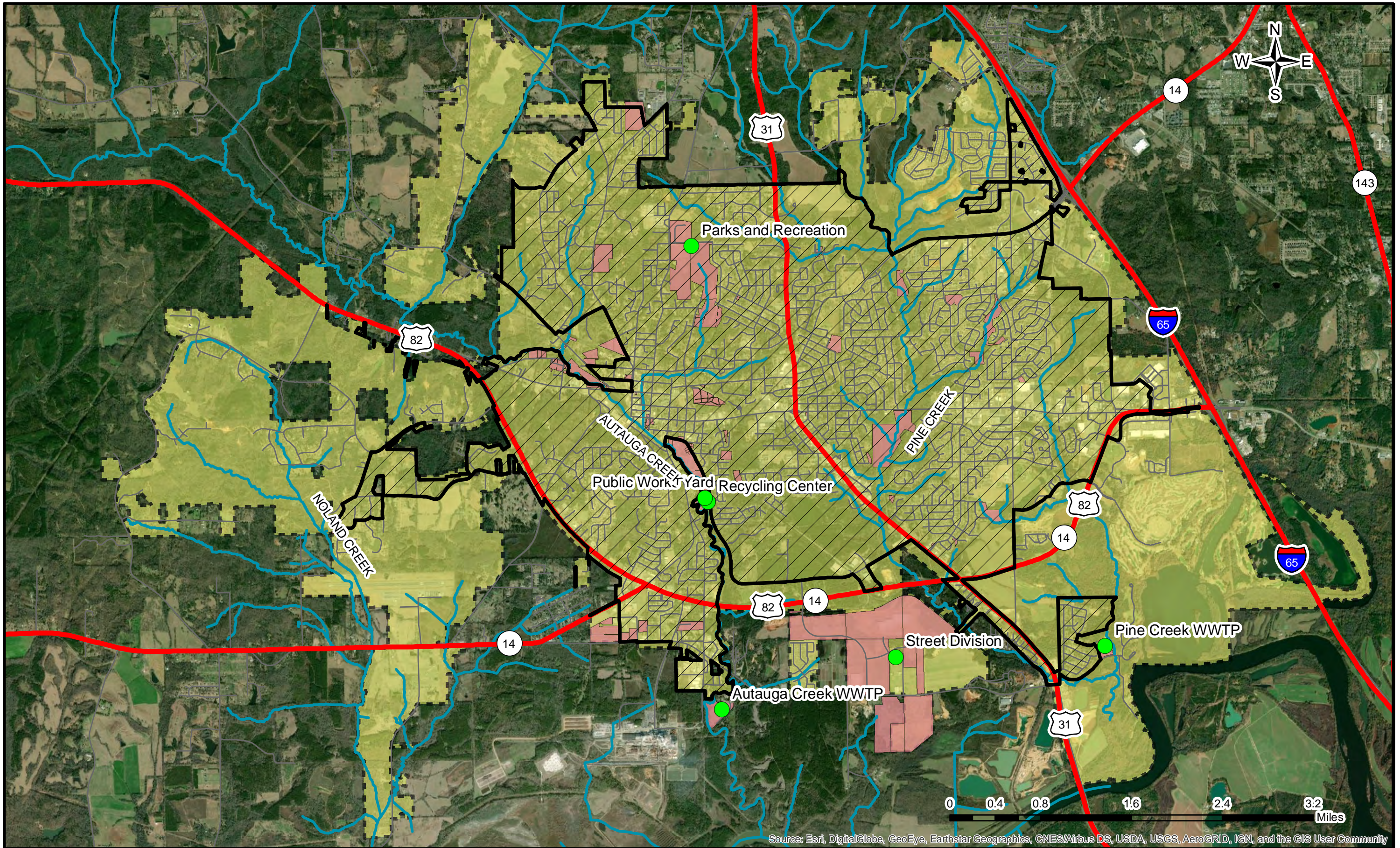
Table 8.1 Municipal Support Facilities

Facility Name	Department	Division	NPDES Permit
Public Works Yard	Public Works	Public Works	NA
Recycling Center		Sanitation	NA
Pine Creek WWTP		Wastewater	AL0027723
Autauga Creek WWTP		Wastewater	AL0026654
Parks and Recreation Yard	Parks and Recreation	Parks and Recreation	NA
Street Division Yard	Engineering	Engineering	NA

8.3.3. Standard Operating Procedures

The City shall develop Standard Operating Procedures (SOPs) for the various activities required in implementing the Pollution Prevention and Good Housekeeping Program. SOPs may include but are not limited to the following:

- Equipment washing;
- Street sweeping;
- Road maintenance;
- Vegetation control;



Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community



Prattville City Limits	City Property	ALDOT Roads	Streams
Prattville MS4 Area	Municipal Facility	Streets	



CITY OF PRATTVILLE
Municipal Facility Inventory

Figure 8-1
September 2020



- Vehicle / equipment maintenance;
- External Building maintenance; and,
- Material storage facilities and yard.

During rainy days, crews for the Urban Management Department cannot perform their routine activities or duties. To utilize these resources, the Urban Management department has created SOPs for activities to be performed by each crew on rainy days.

Copies of SOPs developed by the Urban Management Department are provided in Appendix G. As new SOPs are developed, they shall be included in Appendix G.

8.3.4. Facility Maintenance

Maintenance activities are performed by either the Parks and Recreation Department or the Urban Management Department. A summary of the responsibilities for each department is provided below:

The Parks and Recreation Department is responsible for maintenance of the playing fields and recreational facilities. The Parks and Recreation Department has three (3) crews with each crew assigned specific facilities. Activities performed at each facility is tracked on a on a Parks Checklist. An example of the Parks Checklist is provided in Appendix G.

The Urban Management Department is responsible for the perimeter areas of parks, grounds maintenance, mowing, litter patrol, and ditch maintenance. Resources allocated for each activity includes:

- Parks – Three (3) crews with each crew assigned to specific facilities. Activities performed are tracked on an Urban Management Parks Checklist.
- Grounds Maintenance – Two (2) crews that utilize an Urban Management Daily Checklist to track activities performed.
- Mowing – Two (2) crews that utilize an Urban Management Grounds Crew Cut Log to track activities performed.
- Ditch Maintenance – Two (2) crews that utilize an Urban Management Ditch Crew Work Log to track activities performed. For ditch maintenance, the City has been divided into nine (9) separate sections. Within each section, ditches maintained by the City have been identified with a unique alpha-numeric code. Maps for each section are provided in Appendix G.



Examples of checklists and logs used by the Urban Management Department are provided in Appendix G.

8.3.5. Training

The City shall develop a training program to help facility personnel become familiar with good housekeeping practices. Training may include a discussion on the following topics, as applicable:

- SPCC Plans;
- Good Housekeeping and Spill Prevention;
- Spill Control and Response;
- Vehicle Fueling;
- Vehicle and Equipment Maintenance;
- Vehicle and Equipment Washing;
- Materials Management;
- Waste Management; and,
- Municipal Facility Maintenance.

To minimize the cost and resources associated with training, the City may utilize training programs and materials that have already been developed by EPA, ADEM and/or other readily available sources. Training shall be provided to applicable staff on an annual basis.

A sign-in sheet shall be used to document City employees that have been trained and the training received. After the training materials are developed, they shall be included in Appendix G. An example sign-in sheet is provided in Appendix G.

8.4. Roads

Motor vehicles can generate runoff pollutants through emissions, deposition of exhaust, discharges of fluids and solid particles while traveling and braking. Although the runoff constituents and concentration levels vary with highway type and location, the sources of roadway runoff pollutants typically fall into one of three basic categories:

1. Vehicle traffic;
2. Deicing activities; and,
3. Vegetation management.

Potential pollutant sources from roadways that can affect water quality include:



- Solids generated from pavement wear, tire wear, engine and brake wear can increase turbidity and transport other pollutants that adhere to the particle surfaces;
- Heavy metals from lubricating oil and grease, bearing wear, tire wear, vehicle wear, break lining wear and moving engine parts;
- Nutrients from roadside fertilizer application can expedite algae growth and lower dissolved oxygen levels in streams, rivers and lakes;
- Polycyclic aromatic hydrocarbons (PAHs) such as petroleum and ethylene glycol, resulting from spills and leaks of oil, gas, antifreeze, and hydraulic fluids; and,
- Litter and trash from vehicle traffic.

The City has implemented and maintained BMPs to provide a means of mitigating the negative impacts of various pollutants that can be carried off by rainfall and receiving waters. A description of the BMPs being implemented by the City for its road infrastructure is described in the following sections.

8.4.1. Street Sweeping

The Public Works Department has two (2) street sweepers dedicated for street sweeping. Curbed streets are swept monthly. Streets scheduled for resurfacing are swept and cleaned prior to resurfacing. Routine sweeping schedules have been developed to maximize the use of street sweepers. Maps showing the streets swept are included in Appendix G.

The City shall track street sweeping activities.

8.4.2. Litter Control

Roadside litter control BMPs implemented by the City to address health and aesthetic concerns also improve the quality of storm water runoff by limiting trash in runoff conveyance systems. Public Works Department crews routinely collect and dispose of litter, trash and debris.

The City shall track litter collection activities.



8.4.3. Deicing Activities

Based upon the City's location, winter weather is infrequent. The City spreads sand on roads with snow or ice cover. After winter weather has subsided, the City removes the sand using a small front-end loader and a street sweeper. Salt is not used for any deicing activities.

8.5. Pesticides, Herbicides and Fertilizers

The City is continuously implementing a very effective pesticide, herbicide and fertilizer (PHF) program to prevent potential pollutants from entering the storm sewer system.

8.5.1. PHF General NPDES Permit

In January 2017, the City was granted authorization under ADEM's General NPDES Permit No. ALG870012 for discharges associated with the application of pesticides. Since the City sprays over 6,400 acres for mosquito control, the City was required to obtain coverage under this permit. As required by the permit, the City has developed and implemented a Pesticide Discharge Management Plan.

8.5.2. PHF Standard Operating Procedures

Application, storage and disposal of pesticides, herbicides and fertilizers shall be performed in accordance with Federal and State regulations and in accordance with the manufacturer's recommendations. The City has developed the following Standard Operating Procedures (SOPs) for mixing, application, clean up, storage, training and record keeping:

- SOP PHF-01 – Mixing, application, clean-up, and chemical calculations

A copy of the SOP is provided in Appendix G.

8.5.3. Facility Inventory

The City shall evaluate land under the control of the City to determine where pesticides, herbicides and/or fertilizers are being used. Areas of interest within the MS4 Area may include but are not limited the following:

- Public parks;
- Sports complexes;
- Green space around City facilities; and,
- City rights-of-way.



The City is continuously implementing a very effective pesticide, herbicide and fertilizer program to prevent potential pollutants from entering the storm sewer system. The City maintains approximately 102 properties that consist of support facilities, parks, ball fields and building grounds that occupy approximately 1,080 acres (1.6871 square miles). The locations of City Property are shown in Figure 8.1.

8.5.4. PHF Storage Facilities

The City tries to optimize the use of pesticides, herbicides and fertilizers as well as minimize the quantity of chemicals stored. Chemical storage facilities are summarized in Table 8.3 and shown in Figure 8-1.

Table 8.2 PHF Storage Facilities

Facility	Address
Parks and Recreation Yard	161 Ridgewood Road
Public Works Yard	530 Doster Road

The City shall develop a PHF Storage Facility Inspection Checklist and inspect each PHF storage facility on an annual basis. After the PHF Storage Facility Inspection Checklist is developed, a copy of the checklist shall be provided in Appendix G.

8.5.5. Certification and Licensing

Commercial and non-commercial application of pesticides is regulated in the State of Alabama by the Department of Agriculture and Industries (DAI). In order to maintain a pest control license, applicators are required to obtain routine training that covers the following topics:

- Pests;
- Pests control and pesticides;
- Labels and labeling;
- The environment;
- Applicator safety;
- Laws and regulations;
- Pesticide storage and disposal;
- Record keeping;
- Application equipment and calibration; and,
- Weed control.



City staff and contractors involved with the application, storage and/or disposal of pesticides, herbicides, and fertilizers on City areas shall maintain current certification and training as required by DAI. The City currently has four (4) staff that maintain an applicator's certification. Their applicator's certification documentation is provided in Appendix G.

8.5.6. Chemical Inventory

The City may use a variety of pesticides, herbicide and fertilizer chemicals on road rights-of-way and City Areas. An inventory of pesticides, herbicides and fertilizers stored at each City facility shall be maintained. The City shall develop a method of tracking its chemical inventory.

Material Safety Data Sheets (MSDS) for pesticides, herbicides and fertilizers used by City staff shall be maintained at each individual storage location. The MSDS will provide information about the chemical to include, but not limited to, the following:

- Chemical constituents;
- Product use;
- Dilution requirements;
- Mixing requirements;
- Storage instructions; and,
- Health and safety precautions.

8.5.7. Chemical Use

PHF applications by City staff and contractors shall be tracked on daily application log. An example daily application log is provided in Appendix G.

8.5.8. Soil Testing

The City may collect soil samples to determine the optimum fertilizer and application rate for a particular facility. If results of the soil sample indicate that phosphorus is not needed, the City will use a non-phosphorous fertilizer.

8.6. Program Goals and Evaluation

The City has developed realistic, achievable and measurable goals and performance milestones to measure the progress in implementing a pollution prevention / good housekeeping program. Program goals are summarized in Table 8.4.



The most basic measure to evaluate the program effectiveness is to evaluate whether the program goals are being met. At the end of the permit year, the City will evaluate the program goals and overall effectiveness of the program to help reduce pollutants in storm water runoff. The results of the program evaluation will be summarized in the Annual Report.



**Table 8.4
Pollution Prevention / Good Housekeeping – Program Goals**

Program Component	BMP		Schedule	Responsible Department
	Description	Frequency		
Municipal Facilities	Inventory	Update as needed	30 September 2021	Public Works
	Inspection Requirements	Update as needed	30 September 2021	
	Standard Operating Procedures (SOPs)	Update as needed	30 September 2021	
	Training Requirements	Update as needed	30 September 2021	
Roads	Litter Control	Track	30 September 2021	Public Works
	Street Sweeping	Track	30 September 2021	Public Works
	Deicing Events	Track	30 September 2021	Engineering
Pesticides, Herbicides and Fertilizers (PHF)	PHF Storage Facility Inventory	Update as needed	30 September 2021	Public Works
	Training	Update as needed	30 September 2021	
	Standard Operating Procedures (SOPs)	Update as needed	30 September 2021	
	Chemical Inventory	Track	30 September 2021	
	Chemical Application	Track	30 September 2021	
Program Evaluation	Evaluate Program Effectiveness	Annual	30 September 2021	Public Works Engineering



SECTION 9

Monitoring Program



9. Monitoring

There are no 303(d) listed or TMDL waters located within the City's MS4 Area. In accordance with Part III.1. of the City's NPDES Permit, the City is not required to develop and implement a monitoring program.

If waters within the City's MS4 Area become listed on the 303(d) list, the City shall develop a monitoring program to evaluate the pollutants of concern.